



# **Field Reference Guide for Aviation Users**

**June 2005**

## Foreword

This document has been designed as a reference guide for aviation users in the Department of the Interior. It encompasses references from the Departmental Manual (DM) Parts 350-354, Aviation Policy, supervisor's responsibilities, and tools for risk management. The content has been condensed to address aviation policy issues that frequently occur in the field.

An attempt has been made to structure the flow of information with Parts 350-354 of the DM. Other references are incorporated into each chapter to minimize having to refer to a particular definition from 350 DM 1, Appendix 5, or an OPM that provides specific information to support a policy referenced in the DM.

Additional policy sources to consult on issues contained in this publication are:

1. Operational Procedures Memorandum (OPM) 4: Aviation User Training Program
2. OPM-35: Identification of End Product/Service and Flight Service Procurement
3. Aviation Mishap Response Plan

Questions or suggestions regarding the content of the document can be directed to Training, Division of Technical Services, Aviation Management, 300 E. Mallard Drive, Suite 200, Boise, ID 83706-3991.

## Table of Contents

	Page
Aviation Policy .....	1
Aviation Management Board of Directors (ABOD) - 350 DM 1-Appendix 1.....	1
Public Aircraft Law .....	2
General Program Requirements - 350 DM 1.....	3
Aviation Management Definitions 350 DM 1 (Crewmembers).....	4
Special Use Activities and Revised Standards for Technical Oversight – OPM-29.....	4
Directive System of the Aviation Management - 350 DM 2.....	8
Flight Operations Standards and Procedures - 351 DM 1 .....	9
Crew Complement Requirements - 351 DM 1.2 .....	9
Operations in Restricted Category and Uncertificated Aircraft – OPM-28.....	10
Helicopter Flight Limitations - 351 DM 1.3E .....	11
Aviation Management Definitions – 350 DM 1 (Hover Landings).....	12
Toe-In, Single-Skid, and Step-Out Landings – OPM-40.....	12
Flight Plans and Flight Following – OPM-2 .....	13
Passenger Operations - 351 DM 1.5.....	14
Special Operations - 351 DM 1.6.....	15
Aviation Life Support Equipment (ALSE) Handbook .....	16
Aircraft Equipment and Maintenance - 351 DM 2 .....	19
Equipment - 351 DM 2.2 .....	19
Aircraft Approval Documents - 351 DM 2.5.....	19
Flight Crewmember Policy - 351 DM 3 .....	20
Administrative Procedures - 351 DM 3.5 .....	20
Cooperator Aircraft - 351 DM 4 .....	21
Aviation Management Definitions – 350 DM 1-Appendix 5 (Military Aircraft).....	22
Aviation Safety Program - 352 DM 1 .....	25
Aviation User Training Program – OPM-4.....	26
Aircraft Contracting - 353 DM 1.....	33
Identification of End Product/Service and Flight Service Procurement – OPM-35 .....	34
Functional Statements - 353 DM 1-Appendix 1 .....	36
Aircraft Rental System - 353 DM 2 .....	37
Ordering Flight Services - 353 DM 2.5.....	38
Services Provided, User Rates, and Collection Policies – OPM-6.....	39
DOI Use of Forest Service Procured Aircraft – OPM-39.....	44
Supervisor's Aviation Responsibilities .....	47
Bureau Aviation Management Responsibilities Summary – 350 DM 1-Appendix 3 .....	48
Risk Management: Flight Fax Article by Gen. Reimer .....	50
Medium Risk Syndrome: Flight Fax Article by Maj. Morgan.....	52
Aviation Risk Assessment: Checklist No. 1, No. 2, and Go/No Go Checklist .....	53
Risk Management Process: Matrixes .....	55
NBC Aviation Management Directory .....	59

# Aviation Policy

## Introduction

It is important that Department of the Interior aviation users be familiar with the requirements, procedures and policies involved with aviation.

Departmental aviation guidance is governed by the Code of Federal Regulations (CFR), Federal Aviation Regulations (FAR) and the Departmental Manual (DM).

## Policy

All aviation policy and use is governed by the CFRs, Title 14, Aeronautics and Space. Civil and Government aviation are administered by the FAA and regulated by the FARs.

**FAR: Part 91** - Describes rules governing the general operation of aircraft within the United States.

**FAR: Part 135** - Prescribes rules governing air taxi operators and the carrying of persons or property for compensation or hire as a commercial operator.

**FAR: Part 121** - Prescribes rules governing the certification and operations of an air carrier engaging in interstate or overseas air transportation under a certificate of public convenience.

**112 DM 12.1** - The Aviation Management is responsible for Department-wide functions related to aircraft services and facilities.

## 350 DM 1 - Appendix 1

### Aviation Management Board of Directors

#### ABOD

**I. Purpose:** The purpose of the Aviation Management Board of Directors (ABOD) is to provide executive level bureau involvement in the formulation of policy and the management aspects of aviation activities in the Department. The intent of the Board is to assure bureau/office oversight to achieve aviation services and management commensurate with mission requirements.

**III. Membership:** Members will be senior management officials and they or their designated representatives will be able to speak for respective bureaus/agencies during meetings where commitments to recommendations are required. Board members will have appropriate bureau/agency authority to provide management oversight for aviation commensurate with mission needs, funding capacity, and operational capability.

The Board will be comprised of the following bureaus, offices, and agencies:

- |        |         |          |
|--------|---------|----------|
| A. BIA | D. FWS  | G. NPS   |
| B. BLM | E. USGS | H. OSMRE |
| C. BOR | F. MMS  | I. AM    |

**IV. Functions:** A standing working team comprised of the bureau aviation managers or their appointed representatives and the AM Aviation Management Specialist will provide the routine staff work for the Board and will report to the Board Chair.

## Public Aircraft Law

The president signed Public Law 103-411 on October 25, 1994, which changed the statutory definition of "public aircraft." This was replaced with a new definition contained in PL-106-181 (Aviation Investment and Reform Act) on April 5, 2000.

### Public Aircraft

*Public aircraft* means any of the following aircraft when not being used for a commercial purpose or to carry an individual other than a crewmember or qualified non-crewmember:

(1) An aircraft used only for the United States Government; an aircraft owned by the Government and operated by any person for purposes related to crew training, equipment development, or demonstration; an aircraft owned and operated by the government of a State, the District of Columbia, or a territory or possession of the United States or a political subdivision of one of these governments; or an aircraft exclusively leased for at least 90 continuous days by the government of a State, the District of Columbia, or a territory or possession of the United States or a political subdivision of one of these governments.

(i) For the sole purpose of determining public aircraft status, *commercial purposes* means the transportation of persons or property for compensation or hire, but does not include the operation of an aircraft by the armed forces for reimbursement when that reimbursement is required by any Federal statute, regulation, or directive, in effect on November 1, 1999, or by one government on behalf of another government under a cost reimbursement agreement if the government on whose behalf the operation is conducted certifies to the Administrator of the Federal Aviation Administration that the operation is necessary to respond to a significant and imminent threat to life or property (including natural resources) and that no service by a private operator is reasonably available to meet the threat.

(ii) For the sole purpose of determining public aircraft status, *governmental function* means an activity undertaken by a government, such as national defense, intelligence missions, firefighting, search and rescue, law enforcement (including transport of prisoners, detainees, and illegal aliens), aeronautical research, or biological or geological resource management.

(iii) For the sole purpose of determining public aircraft status, *qualified non-crewmember* means an individual, other than a member of the crew, aboard an aircraft operated by the armed forces or an intelligence agency of the United States Government, or whose presence is required to perform, or is associated with the performance of, a governmental function.

(2) An aircraft owned or operated by the armed forces or chartered to provide transportation to the armed forces if --

(i) The aircraft is operated in accordance with title 10 of the United States Code;

(ii) The aircraft is operated in the performance of a governmental function under title 14, 31, 32, or 50 of the United States Code and the aircraft is not used for commercial purposes; or

(iii) The aircraft is chartered to provide transportation to the armed forces and the Secretary of Defense (or the Secretary of the department in which the Coast Guard is operating) designates the operation of the aircraft as being required in the national interest.

(3) An aircraft owned or operated by the National Guard of a State, the District of Columbia, or any territory or possession of the United States, and that meets the criteria of paragraph (2) of this definition, qualifies as a public aircraft only to the extent that it is operated under the direct control of the Department of Defense.

## 350 DM 1

### General Program Requirements

Purpose	<p><b>350 DM 1.1</b> Parts 350 through 354 of the Departmental Manual establish management responsibilities, policies, and procedures for the utilization and operation of aircraft within the Department of the Interior (DOI). The provisions set forth in the individual chapters of each Part are applicable to all DOI bureaus that utilize or operate aircraft. Because DOI is responsible for aircrew members and passengers on board aircraft under its operational control, the provisions of Departmental Manual Series 350-354, AM Operational Procedures Memorandums (OPMs), and appropriate handbooks are applicable to Interior employees, Interior volunteers, or any other persons supervised by Departmental employees. Persons employed by or whose work is directed solely by cooperators or contractors are exempt from provisions of these documents EXCEPT when their duties include use of flight services which are under operational control of the Department or present a serious safety hazard to DOI personnel or property.</p>
Policy	<p><b>350 DM 1.2</b> DOI aviation activities include “civil” and “public” operations. Civil aircraft operations shall comply with applicable sections of 14 CFR as well as the Departmental Manual. Public aircraft operations shall comply with applicable sections of 14 CFR (control of air traffic, use of airspace, and aircraft registration) as well as the contents of this manual, unless an exception is approved by the Director, AM. Life-threatening emergencies may required deviation from the 350-354 series of the Departmental Manual (DM). In these cases, DOI employees shall use good judgment and common sense. The DM 350-354 series does not apply to international DOI operations (except for fleet operations).</p>
Transportation of Passengers	<p><b>350 DM 1.7</b> Travel on Government aircraft is restricted to official travel or travel on a space-available basis subject to the policies prescribed in 14 CFR Part 101-37. Official travel and space available travel are defined in 41 CFR Part 101-37.401.</p>
Official Passengers	<p><b>350 DM 1.7 A</b> The following categories of personnel are official passengers:</p> <ul style="list-style-type: none"> <li>(1) Officers and employees of the Federal Government traveling on official business.</li> <li>(2) Members of Congress and employees of Congressional committee staffs whose work relates to DOI programs.</li> <li>(3) Non-Federal passengers when engaged in missions which enhance accomplishment of a Departmental program such as personnel of cooperating State, county, or local agencies; representatives of foreign governments; and contractors' representatives to include those employed by such agencies, and private citizens.</li> <li>(4) Space-available passengers authorized and approved in accordance with OMB Circular A-126.</li> <li>(5) Space-available travelers approved by the Secretary of the Interior on a trip-by-trip basis.</li> </ul>
Unauthorized Passengers	<p><b>350 DM 1.7 B</b> All personnel who are not official passengers shall be considered an unauthorized passenger and are not authorized to be transported in any aircraft owned or operated by or on behalf of the Department. A person who is otherwise an official passenger could become unauthorized by performing a function for which that person is not authorized, e.g., a passenger performing pilot duties without proper authorization.</p>

## 350 DM 1 - Appendix 5

### Aviation Management Definitions

**Aircrew Member  
Essential for  
Mission**

7. An objective determination is made by the first line supervisor that an additional crewmember is required to be on board the aircraft to ensure the successful outcome of the mission.

**Flight  
Crewmember**

24. A pilot, flight engineer, or flight navigator assigned to duty in an aircraft during flight time who holds a valid Federal Aviation Administration (FAA) Airman's Certificate and flight physical.

### OPM-29

#### Special Use Activities and Revised Standards for Technical Oversight

**Purpose**

.1 This OPM establishes policies and procedures regarding a) special use activities and b) inspection and technical oversight of vendor pilots and aircraft flying for the Department of the Interior (DOI). It was written to preclude duplication of effort between DOI and the Federal Aviation Administration (FAA) while recognizing that DOI has Departmental oversight responsibilities which must be performed.

**Authority**

.2 This policy is established by the Director, Aviation Management (AM) in accordance with the provisions of Departmental Manual 350 DM 1.

**Definitions**

#### .3 Definitions

**Point-to-Point  
Transportation**

**A.** Flights between airports (excluding operations defined in 351 DM 1.7 as special use) for which the route of flight is determined only by the pilots, based on navigation requirements.

**High  
Reconnaissance**

**B.** A route of flight which includes reconnaissance and is conducted above 500' above ground level (AGL). This reconnaissance does not include any aircraft maneuvers which are in excess of commercial pilot skills, maneuvering below 1.4 VSO (airplane landing configuration stall speed), or climbs/turns/descents greater than standard rate. This does not include any type of precise maneuvering or specialized equipment.

**Special Use  
Activities**

**C.** Operations involving the utilization of airplanes and helicopters in support of DOI programs which are not point-to-point flight activities and which require special control measures due to their inherently higher risk. This may require deviation from normal operating practices where authorized by AM. Special pilot qualifications and techniques, special aircraft equipment, and personal protective equipment are required to minimize risk to personnel and property. These activities include:

- Low-level flight (within 500' of the surface)
- Mountain flying (helicopter)
- Resource reconnaissance
- Fire reconnaissance
- Air tactical group supervision
- Toe-in, single-skid, and step-out landing (helicopter)
- Cargo letdown
- External load - shortline < 50' (helicopter)
- External load - longline > 50' (helicopter)
- Rappel
- Short-haul

<p><b>OPM-29: (continued)</b></p> <p><b>Special Use Activities</b></p>	<ul style="list-style-type: none"> <li>- Offshore platform landings (helicopter)</li> <li>- Vessel landings</li> <li>- Water landings - floats or hull (helicopter)</li> <li>- Wheel operations on unprepared landing areas (airplane)</li>   <li>- Animal darting, paint ball</li> <li>- Animal eradication</li> <li>- Animal gathering and capture</li> <li>- Airframe-mounted net gun (helicopter)</li> <li>- Handheld net gun</li>   <li>- Aerial ignition</li> <li>- Night vision goggles</li> <li>- Smoke jumping/paracargo</li> <li>- Water/retardant application</li> </ul> <p>Note: Future flight activities may be developed which should also be identified as special use. If a question exists, the applicable AM Regional/Area Office should be consulted.</p>
<p><b>Precision Reconnaissance including Fire Recon</b></p>	<p><b>D.</b> This type of reconnaissance is conducted above 500' AGL. Transect type operations, utilization of specialized equipment, or missions not normally conducted in the commercial sector are examples of specific tasks that require special consideration. Precision reconnaissance is divided into three sub-categories which are resource reconnaissance, fire reconnaissance, and air tactical supervision. These special use activities <b>do not</b> require the use of PPE, survival kits, or first aid kits because they are conducted exclusively <b>above 500' AGL</b> and are considered low risk.</p>
<p><b>Administrative Approval Document</b></p>	<p><b>E.</b> A written notice, issued by AM and carried aboard the aircraft, from which the user can verify that the vendor has a current and approved Aircraft Rental Agreement for that specific aircraft. <b>Note: This document DOES NOT denote a DOI technical inspection or approval.</b></p>
<p><b>Policy</b></p>	<p><b>.4</b> All vendor pilots flying for DOI shall conform to the standards contained in 351 DM 3 and all vendor aircraft flying for DOI shall conform to the standards contained in 351 DM 2. Vendor pilots and aircraft flying only point-to-point transportation and high reconnaissance shall comply with 14 CFR 135 and applicable state regulations for operations, maintenance, and equipment. Personal protective equipment (PPE) requirements will be as specified in the ALSE Handbook as amended by this OPM.</p>
<p><b>Procedures: Vendor Pilots</b></p>	<p><b>.5 A. Vendor Pilots</b></p> <ol style="list-style-type: none"> <li>1) Pilots shall document their experience on OAS Form 64, Interagency Pilot Qualifications and Approval Record, and submit this form to AM.</li> <li>2) AM will complete an administrative pilot review of flight experience, medical currency, 135 check ride currency, accident/violation history, and DOI Aviation Mishap Information System (AMIS) history and as documented on the OAS Form 64.</li> <li>3) After it has been determined that a pilot meets the experience requirements and a satisfactory administrative review has been completed, point-to-point transportation and high reconnaissance pilot qualifications may be issued for a 2-year cycle period (not to exceed 26 months).</li> </ol>



**OPM-29:  
(continued)**

**Vendor Pilots**

**Initial Flight  
Evaluation**

4) Pilot approval for special use activities will be in accordance with 351 DM 3 and the following flight evaluation intervals:

a) An initial flight evaluation will be conducted for each special use activity to be flown regardless of whether or not periodic evaluations are required.

b) The following special use activities require only an initial evaluation:

- Aerial ignition
- Airframe-mounted net gun (helicopter)
- External load - shortline <50' (helicopter)
- Low-level flight (helicopter)
- Mountain flying (helicopter)
- Off shore platform landings (helicopter)
- Resource reconnaissance (including fire recon)
- Fire reconnaissance
- Air tactical group supervision
- Water landings/floats or hull (helicopter)
- Single engine airplane water/retardant application

**3-Year Cycle**

c) The following special use activities require periodic flight evaluations. A pilot must have completed a satisfactory flight evaluation within the preceding 3-year cycle period (not to exceed 38 months) before performing the following activities:

- Animal darting, paint ball
- Animal eradication
- Animal gathering and capture
- Cargo letdown
- External load - longline >50' (helicopter)
- Handheld net gun
- Low-level flight (airplane)
- Toe-in, single-skid, and step-out landing (helicopter)
- Vessel landings
- Water/retardant application (except single engine airplanes)
- Wheel operations on unprepared landing areas (airplane)

**Annual Cycle**

d) The following special use activities require annual flight evaluations. A pilot must have completed a satisfactory flight evaluation within the preceding 14 months before performing the following activities:

- Night vision goggles
- Rappel
- Short-haul
- Smoke jumping/paracargo

e) Confirmation of 14 CFR compliance may be accomplished via a quality assurance program of random sampling of OAS Form 23, Aircraft Use Report, and verification of periodic flight evaluations and medical certifications.

f) Pilot qualification removal/suspension will be in accordance with current revocation procedures found in 351 DM 3, Appendix 1.

**Vendor Aircraft**

**.5 B Vendor Aircraft**

1) The Bureau shall submit an OAS Form 20, Request for Rental Services, through its National Aviation Manager to the AM Flight Coordination Center identifying the Bureau's point-to-point aircraft requirements.

2) For new vendors, a business meeting shall be scheduled to discuss administrative procedures, safety expectations, and problem resolution processes with suggested attendance by the requesting bureau(s), interagency partners, vendor senior management, and the servicing AM field office representative. This meeting is administrative in nature and is not for technical inspection purposes.

3) Aircraft meeting all administrative requirements will be issued an administrative approval document for a 2-year period (not to exceed 26 months) which shall be carried in the aircraft and made available for review upon request.

**Aviation Life  
Support  
Equipment**

**.5 C. Aviation Life Support Equipment**

1) The Aviation Life Support Equipment (ALSE) Handbook does not apply to vendor aircraft procured under an Aircraft Rental Agreement (ARA) when conducting point-to-point (non-special use) activities.

2) For all special use activities, the PPE requirements of the ALSE Handbook apply.

3) Aircraft used in offshore missions, such as Minerals Management Service aircraft, are not required to comply with the survival kit requirements of appendix 1 to the ALSE Handbook. These aircraft are required to meet the survival kit requirements of 14 CFR 135.167.

**Quality Control**

**.5 D. Quality Control**

1) Technical oversight and inspection is the responsibility of the FAA and is supported by quality control input from DOI users.

a) Incidents, hazards, and maintenance deficiencies shall be reported via the SAFECOM Incident Reporting System ([www.oas.gov](http://www.oas.gov)) or telephonically to the servicing AM field office for matters of urgency.

b) AM will consolidate the information and, as appropriate, communicate it to the FAA office having responsibility for the vendor.

c) AM may visit point-to-point vendors occasionally for quality control purposes.

2) Removal of vendors will be in accordance with current revocation procedures found in 351 DM 3, Appendix 1.

## 350 DM 2

### Directive System of the Aviation Management

Issuing Authority	<b>350 DM 2.2</b> All 350-354 DM releases are signed by the Assistant Secretary - Policy, Management and Budget. All material published in the handbooks, Operational Procedure Memorandums (OPMs), Information Bulletins (IBs), Operation Guides (OGs), and AM Instructions is issued under the authority of the Director-AM.
Handbooks	<b>350 DM 2.3</b> Handbooks provide detailed procedures and requirements of policy established in the applicable chapter of the DM.
Operational Procedure Memorandums (OPMs)	<b>350 DM 2.4</b> Temporary or interim directives are issued Department-wide as OPMs to permit the timely dissemination of instructional and procedural material. They are published under the issuing authority of the Director-AM, or a Regional/Area Director for matters within their delegated responsibility.
Information Bulletins (IBs)	<b>350 DM 2.5</b> Announcements and information of general interest are published as IBs. IBs are non-directive, bear no expiration date, and may be discarded at the discretion of the recipient. Any superseded IB will be noted in the new release. Annually, the Aviation Management will issue a listing of all current IBs.
Operation Guides (OGs)	<b>350 DM 2.6</b> Guides communicate preferred procedures for a specific aspect of aviation operations, but are not mandatory in nature at the Department level but may be adopted by the Bureau.

## 351 DM 1

### Flight Operations Standards and Procedures

#### General

**350 DM 2.6** Guides communicate preferred procedures for a specific aspect of aviation operations, but are not mandatory in nature at the Department level but may be adopted by the Bureau.

#### Seatbelts and Shoulder Harnesses

**351 DM 1.1 G** Occupants shall wear seat belts and installed shoulder harnesses during all phases of flight unless there is a valid operational or safety requirement which would cause a PIC to direct otherwise.

#### Smoking Policy

**351 DM 1.1 J** Smoking is not permitted in fleet, contract, and BOA aircraft.

## 351 DM 1.2

### Crew Complement Requirements

#### Personnel at Controls

**351 DM 1.2 B** Only those individuals authorized by the Director-AM may manipulate the flight controls. Authorization may be in the form of Pilot Qualification Cards or special letters of authorization signed by the Director-AM. This includes pre-employment flight evaluation. Exceptions are:

(1) Vendor second-in-command pilots need not be carded except where second-in-command experience is defined by the procurement document.

(2) 14 CFR 121 operators not under contract are exempt from specific pilot carding procedures.

(3) Pinch hitter courses involving DOI employees require Director-AM approval.

## OPM-28

### Operations in Restricted Category and Uncertificated Aircraft

<b>Purpose</b>	.1 This OPM establishes policy for operations in restricted category or uncertificated aircraft. Public Law 103-411 mandates this change.
<b>Authority</b>	.2 This policy is established by the Director, Aviation Management (AM) in accordance with the provisions of Departmental Manual 350 DM 1 and Public Law 103-411.
<b>Policy</b>	<p><b>.3 Policy</b></p> <p style="padding-left: 40px;">A. Delete 351 DM 1.1I and replace with the following:</p> <p style="padding-left: 80px;">I. Operations in Restricted Category and Uncertificated Aircraft</p> <p style="padding-left: 40px;">(1) Operation of aircraft certificated in the Restricted Category shall be limited to the special purpose operations authorized by that certificate. All operations shall be in accordance with 14 CFR 91.313 and the aircraft operating limitations of the Restricted Certificate. For aircraft with multiple Airworthiness Certificates, the operating rules of the Certificate being used shall apply.</p> <p style="padding-left: 40px;">(2) Operations of Uncertificated Aircraft shall be limited to transportation of persons (e.g., firefighters) and property directly associated with the mission as authorized by Public Law 103-411. However, the aircraft must be maintained in accordance with a maintenance and inspection program accepted by the Director, AM. This authorization does not include transportation of passengers not directly associated with the performance of the mission. Operations involving persons who need to be moved from one location to another require the aircraft to have a Standard Airworthiness Certificate and to be operated and maintained as civil aircraft in accordance with 14 CFR 91.</p> <p style="padding-left: 40px;">B. Delete 351 DM 4.1B(3) and replace with the following:</p> <p style="padding-left: 80px;">(3) Operations in Restricted Category and Uncertificated Aircraft.</p> <p style="padding-left: 40px;">(a) Operation of aircraft certificated in the Restricted Category shall be limited to the special purpose operations authorized by that certificate. All operations shall be in accordance with 14 CFR 91.313 and the aircraft operating limitations of the Restricted Certificate. For aircraft with multiple Airworthiness Certificates, the operating rules of the Certificate being used shall apply.</p> <p style="padding-left: 40px;">(b) Operations of Uncertificated Aircraft shall be limited to transportation of persons (e.g., firefighters) and property directly associated with the mission as authorized by Public Law 103-411. However, the aircraft must be maintained in accordance with a maintenance and inspection program accepted by the Director, AM. This authorization does not include transportation of passengers not directly associated with the performance of the mission. Operations involving persons who need to be moved from one location to another require the aircraft to have a Standard Airworthiness Certificate and to be operated and maintained as civil aircraft in accordance with 14 CFR 91.</p>

## 351 DM 1.3E Helicopter Flight Limitations

Night Flight Requirements	<p><b>351 DM 1.3 E</b> (1) Single- or multi-engine helicopter flights may be conducted under VFR conditions at night, provided that:</p> <p>(a) The aircraft is equipped for IFR and night flight in accordance with 14 CFR 91.</p> <p>(b) The pilot is instrument rated in any category and current at night in accordance with 14 CFR 61.</p> <p>(c) All takeoffs and landings can be made in areas where the boundaries are clearly shown by lights, reflective material which can be illuminated by the helicopter's landing light, or other identifiable landing aids.</p> <p>(d) Single engine helicopter flights conducted at night are confined to areas where an emergency autorotation can be accomplished to lighted areas or to terrain known to the pilot to be free of wires or other hazards which may be indistinguishable at night. Cross-country flights may be allowed over preplanned routes where hazards are clearly marked on the hazard map and are familiar to the pilot. Pilots must maintain visual ground light reference. Night flights over large areas of water or forest where surface lights are not visible are prohibited.</p>
Wind Restrictions	<p>(3) Helicopter operations shall be shut down if the wind exceeds those limitations established in the Operator's Flight Manual or manufacturer's recommendations. If no wind limitation has been prescribed by the manufacturer, helicopter operations shall be terminated when wind speed exceeds the following conditions:</p> <p>(a) Low-level operations:</p> <p style="padding-left: 40px;">(i) Small helicopters: 30 knots, or a maximum gust spread of 15 knots.</p> <p style="padding-left: 40px;">(ii) Medium/large helicopters: 40 knots or a maximum gust spread of 15 knots.</p> <p>(b) Flights more than 500 feet above the surface: 50-knot winds.</p>
Snow Operations	<p>(4) Flights in falling snow may be accomplished, provided:</p> <p>(a) VFR conditions are maintained.</p> <p>(b) Turbine helicopters are equipped with snow kits as prescribed by the approved flight manual.</p>
External Load Operations	<p>(5) (a) Personnel essential to the activity being conducted may be transported while carrying external loads, provided the helicopter is not certificated in the "restricted" category.</p> <p>(b) An empty retardant bucket may be carried from a jettisonable sling during the transporting of ground fire crews to a fire.</p>
Hover Landings	<p>(7) Hover landings are not prohibited due to lower risk. [See 350 DM 1: Appendix 5 below.]</p>

## 350 DM 1 – Appendix 5

### Aviation Management Definitions

#### Hover Landings

**31.** Hover landings are landings which do not meet the definition of toe-in, one-skid, or step-out landings. These landings are characterized by the necessity to maintain a substantial amount of hover power while the landing gear is in contact with the surface. This is normally due to the nature of the surfaces such as swampy ground, tundra/muskeg, snow, lava rock, etc. During these landings, the potential CG shifts are not as hazardous as in the previously mentioned landings (i.e., toe-in, one-skid); however, the pilot remains alert and on the controls as opposed to a flat surface/flat pitch landing stability.

### OPM-40

### Single-Skid, Toe-In, and Hover Exit/Entry

#### Policy

**.1 Policy.** This OPM establishes policy and operational procedures for the use of helicopter single-skid, toe-in and hover step exit/entry. This policy applies to all DOI fleet, cooperator, and vendor flight activities involving government aircrew members. Note: These standards will also be used to evaluate training plans required by procurement documents where the vendor is providing all personnel involved with the single-skid, toe-in and hover exit/entry.

#### General

**.3 General.** The use of single-skid, toe-in and/or hover step exit/entry maneuvers are driven by a variety of factors. These include; condition of the terrain, slope, obstacles, wind, snow depth and vegetation coverage. In addition to environmental considerations it is critical that the pilot performing these maneuvers be proficient.

#### Definitions

“STEP” is defined as **Single-skid, Toe-in and hover Exit/entry Procedures**. There are three separate STEP maneuvers to be conducted in this mission profile. (For the purpose of this document references to skids also apply to other helicopter landing gear configurations).

Note: As a result of flight manual limitations dealing with lateral weight and balance, some make/model helicopters cannot be used for one or more of the STEP activities.

A. Single-skid: One skid or a portion of one skid is in contact with the surface while the other skid is (due to terrain considerations) not in contact with the surface.

B. Toe-in: The toes (forward portion of the skids) are in contact with the surface, while the aft section of the skids is not in contact with the surface.

C. Hover: The helicopter remains in a hover above the surface of the terrain with skid to ground clearance of no more than 24 inches.

#### Responsibilities

**.5 Responsibilities.** The identification, approval, use, and oversight of STEP maneuvers requires an effective, collaborative working relationship between DOI AM and the agencies.

##### **A. Bureau Responsibilities**

**National Office:** Review and approve the operations plan and sign a letter of approval for the STEP request from the local unit.

##### **Field Offices:**

(1) Due to the hazardous nature of these types of landings, toe-in, single-skid, and step-out landings are to be used only when absolutely necessary and in

**OPM-40  
(Continued)**

compliance with procedures in (2) and (3) below.

(2) If a bureau identifies a need to perform these types of landings to accomplish a program requirement, they shall contact their DOI AM Regional Office for assistance a minimum of 45 days prior to the mission. This request for assistance shall include an operations plan for the project as well as a risk assessment and the bureau aviation manager's signed letter of approval.

(3) In response to bureau requests for assistance with flight activities involving STEP activities, the AM Regional Office will provide appropriate pilot approvals in support of specific project requirements. In addition, these DOI AM offices will provide the required training for bureau personnel/passengers who will enter and exit helicopters during these types of landings or who will be approved instructors for this type activity.

Bureaus will coordinate with their National Aviation Program Manager in nominating individuals to become STEP instructors.

## **OPM-2 Flight Plans and Flight Following**

**Purpose**

**.1 Purpose.** This OPM establishes policy for aircraft flight plans and flight following and replaces policy stated in Departmental Manual 351 DM 1.4.

**Flight Plans**

**.3 Policy: Flight Plans.** Pilots shall file and operate: a) on a Federal Aviation Administration (FAA) flight plan, or b) on an International Civil Aviation Organization (ICAO) flight plan, or c) in accordance with a bureau-approved flight plan program, or d) in accordance with an AM Director-approved vendor flight plan program specified in an AM procurement document. Flight plans shall be filed prior to takeoff when possible.

Bureau flight plan programs may be used to accommodate specialized bureau missions and must be approved as delegated by the bureau director. As a minimum, a bureau flight plan program must specify route of flight, estimated time of arrival (ETA), how an aircraft will be tracked during flight, and response procedures should the aircraft experience a mishap or fail to check in.

**OPM-2:  
Flight Following**

**Flight Following.** Pilots are responsible for flight following: a) with the FAA, or b) with the appropriate ICAO entity, or c) in accordance with a bureau-approved flight following program, or d) in accordance with an AM Director-approved vendor flight following program specified in an AM procurement document. When communication is possible, position reporting shall not exceed 1-hour intervals under normal circumstances.

Bureau flight following programs must be approved as delegated by the bureau director. As a minimum, a bureau-approved flight following program must specify actions to be taken (e.g., notify the FAA) in the event of an overdue or missing aircraft. Position reports resulting from use of a bureau-approved flight following program must be documented by the receiving office and provide enough information to enable easy location of an overdue or missing aircraft.

An aircraft is considered "overdue" when it fails to arrive within 30 minutes past the ETA and cannot be located. An aircraft is considered "missing" when it has been reported to the FAA as being "overdue" and the FAA has completed an administrative search for the aircraft without success.



## 351 DM 1.5

### Passenger Operations

#### Manifesting

**351 DM 1.5 A** The pilot-in-command shall ensure that a manifest of all crewmembers and passengers on board has been completed. A copy of this manifest shall remain at the point of initial departure. Manifest changes will be left at subsequent points of departure when practical. In those instances where multiple short flights will be made in a specific geographic area which involves frequent change of passengers, a single manifest of all passengers involved may be left with an appropriate person to preclude unreasonable administrative burden.

#### Briefing

**351 DM 1.5 B** Before each takeoff, the pilot-in-command shall ensure that all passengers have been briefed in accordance with 14 CFR 135. In those instances where multiple short flights are made, the pilot's briefing does not need to be repeated unless new passengers come aboard. Additionally, the briefing should include location of the following items if installed on the aircraft:

(1) Emergency locator transmitter (ELT).

(2) Aviation life support equipment.

(3) First aid kit.

#### Enplaning/ Deplaning Passengers

**351 DM 1.5 C** (1) On single engine land planes, the engine will not be started until passengers are aboard and the doors are closed. At the completion of the flight, engine will be shut down, propeller stopped and switches off before cabin doors are opened for passenger off-loading.

(2) On single engine floatplanes, if it is necessary for a passenger to assist the pilot in docking or beaching operations, the passenger will be briefed by the pilot on all safety precautions prior to each operation. At no time will a passenger or crewmember be allowed forward of the wing strut on a high wing aircraft, or forward of the wing on a low wing aircraft while the propeller is turning.

(3) On multiengine airplanes, passenger loading/offloading may be accomplished at en route stops with engine(s) running on the side of the airplane opposite the cabin door when a qualified crewmember is at the controls during the loading/offloading process. No personnel will be allowed on the side of the airplane with the engine running without a passenger escort trained in the hazard of this activity. Passenger loading/offloading can be accomplished with engine(s) running on the side of the aircraft with the passenger doors when:

(i) A qualified flight crewmember will be at the controls of the aircraft, and

(ii) Propeller is located forward of the wing and main cabin entrance door is located behind the wing, and

(iii) Propeller is capable of being fully feathered while the engine is running (turbine-powered aircraft), and

(iv) An aircrew member escort is used to prevent problems with

passenger entrance/egress and to ensure clothing, hand-carried items, etc. are secure.

(4) Helicopter engines need not be shut down during passenger loading or unloading, providing the pilot briefs passengers on safety precautions. Passengers shall depart the helicopter toward the front within the pilot's view, avoiding the uphill side and rear of the helicopter. Passengers shall keep heads and equipment low to avoid the rotor system.

## **351 DM 1.6 Special Operations**

### **Cold Weather**

**351 DM 1.6 A** Flight operations with single engine aircraft shall not be conducted when the surface temperature is –40 °F or colder.

### **Aviation Transport Of Hazardous Materials**

**351 DM 1.6 B** Detailed procedures are outlined in the Aviation Transport of Hazardous Materials Handbook.

### **Temporary Flight Restrictions**

**351 DM 1.6 C** DOI personnel may request a temporary flight restriction under Federal Aviation Regulation (14 CFR 91.137) to protect persons or property on the surface or in the air from the hazards associated with an incident on the surface and to provide a safe environment for the operation of disaster relief aircraft. The procedures necessary to obtain a temporary flight restriction are contained in the Interagency Airspace Coordination Guide.

### **Undercover Law Enforcement Operations In Non-AM- Approved Aircraft**

**351 DM 1.6 D** DOI employees involved in undercover law enforcement operations are authorized to use unapproved aircraft and pilots during the covert phase of an operation providing:

(1) The activity is essential to the accomplishment of the mission,  
and

(2) Such use is consistent with the undercover operating policy and practices of the bureau concerned.

### **Special Use Activities**

**351 DM 1.7** Special use activities are the utilization of airplanes and helicopters in support of programs which are not point-to-point flight activities and which require special considerations due to their functional use. Refer to OPM 29.

### **Operational Requirements**

**351 DM 1.7 A** (1) Aircraft and pilots shall be approved for each special use activity prior to use. Privately owned aircraft used on official business for DOI shall not be approved for special use operations.

(2) Employees engaged in special use activities must meet the training requirements outlined in the Aviation User Training Program.

### **Personal Protective Equipment (PPE)**

**351 DM 1.7 B** Policy and detailed information are outlined in the Aviation Life Support Equipment (ALSE) Handbook.

# Aviation Life Support Equipment (ALSE) Handbook

## Chapter 1: General Information

Purpose	<p><b>1.1</b> The ALSE Handbook outlines policies, procedures, and responsibilities for using aviation life support equipment (ALSE) during Department of the Interior (DOI) aviation activities. It is designed to supplement the Departmental Manual, providing detailed information as well as specific requirements.</p>
Responsibilities	<p><b>1.2 B.</b> Bureaus are responsible for implementing their Personal Protective Equipment Program. Supervisors are responsible for evaluating aviation activities and providing employees with appropriate ALSE equipment. Supervisors are also required to provide employee training on the proper use of ALSE equipment. When minimum requirements are listed, bureaus and individuals are encouraged to supplement these requirements to meet the needs of the mission and the environment.</p>
Exceptions	<p><b>1.4 A.</b> 1. Fire-resistant clothing, gloves, and leather boots are not required for overwater flights beyond gliding distance to shore, or for offshore vessel and platform landings.</p> <p>2. Fire resistant clothing is not required for aerial agricultural and chemical application operations.</p> <p>3. Wildland firefighters assigned to wildland fire incidents may wear approved hardhats in lieu of a flight helmet. Hardhats must be worn with the chinstrap properly fastened.</p> <p>4. PPE is not required for precision reconnaissance (including fire recon) flights conducted above 500' AGL.</p> <p>5. Flight helmets are not required in multiengine fixed wing airplanes.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><b>Note:</b> These exceptions do not authorize the wearing of outerwear garments or undergarments made of materials with low temperature melting characteristics, such as synthetics (nylon, Dacron, polyester, and so on) and synthetic blends, as provided by paragraphs 2.2C and D of this handbook.</p> </div>
Waivers	<p><b>1.4 B</b> If the bureau identifies an ALSE requirement that presents a concern affecting the employee's safety or security, then bureau directors have discretionary authorization to grant a waiver. This authority may be exercised by the bureau director or by written delegation at a lower authority. Exercising this authority requires that the Director-AM be provided a copy of the waiver and any written delegation.</p>
Other Waivers	<p><b>1.4 C</b> All other waivers must be approved by the Director-AM in accordance with 350 DM 1.9.</p> <p><b>350 DM 1.9 A</b> The AM Director may issue written authorization for exceptions to prescribed policy providing:</p> <ul style="list-style-type: none"> <li>(1) The deviation is in the interest of the U.S. Government, and</li> <li>(2) Aviation safety considerations are not compromised.</li> </ul> <p><b>350 DM 1.9 B</b> Requests for exceptions must be addressed to the AM Director from the Bureau Aviation Manager and must contain detailed justification that the waiver is essential in the accomplishment of specific bureau projects.</p>

## ALSE Chapter 2: Personal Protective Equipment

<p><b>General</b></p> <p><b>Personal Protective Equipment (PPE)</b></p>	<p><b>2.1</b> Personal Protective Equipment (PPE) includes head protection, flash fire protection, and the Occupational Safety and Health Administration (OSHA) requirements for hearing conservation and eye protection.</p> <p>Flight crews and passengers engaged in special use activities are required to wear the following ALSE unless exempted by paragraph 1.4A:</p> <ul style="list-style-type: none"> <li>A. Fire-resistant clothing.</li> <li>B. All-leather, or leather and Nomex gloves.</li> <li>C. Leather boots.</li> <li>D. Flight helmets.</li> </ul>
<p><b>Fire Resistant Clothing</b></p>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p><b>Note:</b> Extreme environmental work conditions may dictate that a waiver be obtained, as provided by paragraph 1.4B, to negate or substitute an ALSE requirement.</p> </div> <p><b>2.2</b> Fire resistant clothing protects the wearer from flash fire burns. The preferred material is commonly known as "Nomex." The actual material may be Nomex, polyamide, aramide, polybenzimidazole, Kevlar, or blends thereof. These materials, while not fireproof, will char rather than burn at about 700 to 800 degrees Fahrenheit. Cotton materials chemically altered into "fire-resistant (FR) cotton" are acceptable. Materials treated with fire retardant chemicals which launder out and materials with low temperature melting characteristics, such as synthetics (nylon, Dacron, polyester and so on) and synthetic blends, are not approved.</p> <p>Nomex shirts and trousers used by wildland firefighters are approved for DOI aviation operations. Shirtsleeves should be long enough to overlap the gloves with the cuffs fastened. The shirttail should be tucked into the trouser and the trouser should cover the boot cuffs.</p>
<p><b>Outer Garments</b></p>	<p><b>2.2 C.</b> Garments worn over the Nomex flight suit such as coats, bib pants, coveralls, etc. should also be made of Nomex. Outerwear garments made from natural fibers such as leather, cotton, wool, or wool/cotton blend, as well as from fire resistant cotton and cotton blends, are acceptable substitutes. Materials with low temperature melting characteristics, such as synthetics (nylon, Dacron, and so on) and synthetic blends, are not approved.</p>
<p><b>Under Garments</b></p>	<p><b>2.2 D.</b> Underwear, socks, and clothing worn under the flight suit and next to the skin will provide the best protection if made of Nomex. Natural fibers such as cotton, wool, or wool/cotton blends, as well as fire resistant cotton and cotton blends, are acceptable substitutes. Materials with low temperature melting characteristics, such as synthetics (nylon, Dacron, and so on) and synthetic blends, are not approved.</p>
<p><b>Flight Helmets</b></p> <p><b>Hearing Protection</b></p>	<p><b>2.3</b> Flight helmets provide head, eye, and hearing protection in most environments.</p> <p><b>2.3 A.</b> Flight helmets, consisting of a one-piece hard shell made polycarbonate, Kevlar, carbon fiber, or fiberglass must cover the top, sides (including the temple area and below the ears), and the rear of the head. Flight helmets must conform to a national certifying agency standard, such as DOT, Snell-95, SFI, or an appropriate military standard, and be compatible with required avionics. "Shorty" helmets are not approved.</p> <p><b>2.3 B.</b> A hearing protection program is required whenever employees are exposed to noise equal to, or exceeding, an 8-hour time-weighted average of 85 decibels (dBA). Most operating aircraft generate noise levels above 85 dBA.</p>
<p><b>Eye Protection</b></p>	<p>When not conducting special use activities, earmuffs and earplugs may be substituted for the flight helmet. Earplugs generally provide the best noise reduction.</p> <p><b>2.3 C.</b> DOI requires eye protection in work environments where particle air contaminants are present.</p>

## ALSE Chapter 3: Survival Equipment

General	<p><b>3.1</b> This chapter describes the minimum survival equipment and first aid kit requirements for overwater flights, special use activities, and flights conducted overland. This does not exempt mission planners from ensuring that occupants have in their possession, when boarding the aircraft, adequate clothing for the mission environment in the event of a mishap or survival situation.</p>
Overwater Flights	<p><b>3.2</b> The appropriate overwater ALSE is based on many factors, including mission, search and rescue time, weather, and water conditions.</p> <p>For extended overwater operations, DOI aircraft must comply with 14 CFR 135.167.</p>
Personal Floatation Devices (PFDs)	<p><b>3.2 A.</b> In addition to complying with Federal Aviation Regulations, occupants must wear PFDs aboard DOI flights when performing takeoffs or landings to water (including float and boat-hulled aircraft) and when performing water bucket dipping or snorkeling operations.</p> <ol style="list-style-type: none"> <li><b>1. Single Engine Aircraft.</b> PFDs must be worn by occupants aboard DOI flights operating beyond gliding distance to shore.</li> <li><b>2. Multiengine Aircraft.</b> PFDs need not be worn but must be immediately available to occupants aboard DOI flights operating beyond gliding distance to shore.</li> </ol>
Anti-Exposure Garments	<p><b>3.2 B.</b> Anti-exposure garments must be worn in single engine aircraft and readily available to occupants of multiengine aircraft when conducting extended overwater flights (as defined in 14 CFR 1.1) where water temperature is colder than 50 degrees Fahrenheit.</p> <ol style="list-style-type: none"> <li>The anti-exposure flight suit approved for DOI use is a one-piece coverall insulated to provide some hypothermia protection and buoyancy. Hood and hand protection must be carried in a specific pocket provided for that purpose.</li> <li>Survival suits must be a dry immersion type, constructed from a closed-cell material, and insulated. Quick-donning anti-exposure suits are acceptable in multiengine aircraft.</li> </ol>
Survival Equipment: Life Rafts	<p><b>3.2 C.</b> Life rafts are required for extended overwater operations in accordance with 14 CFR 135.167, and recommended when operating beyond gliding distance to shore.</p> <p>Helicopter – Extended overwater (helicopter) 50 nautical miles from shore and beyond a landing platform.</p> <p>Airplane – 50 nautical miles from shore.</p>
Overland	<p><b>3.3</b> The appropriate overland ALSE is based on many factors, including mission, search and rescue time, weather, and terrain.</p>
Survival Kits	<p><b>3.3 A.</b> Survival kits are required for special use activities and are recommended for all missions.</p>
First Aid Kits	<p><b>3.4</b> Aircraft owned or operated for DOI are required to have installed or carry a first aid kit. The kit items must be stored in a dust-proof and moisture-proof container. It must be readily accessible to the aircraft occupants.</p>

## 351 DM 2

### Aircraft Equipment and Maintenance

#### Purpose

**351 DM 2.1** This chapter prescribes minimum aircraft equipment and maintenance standards for all activities within the Department of the Interior (DOI). This applies to DOI fleet aircraft, commercial aviation operations, and privately owned aircraft operated on official business.

## 351 DM 2.2

### Equipment

#### Floats

**351 DM 2.2 C** Single engine helicopters and single engine airplanes operated beyond power-off gliding distance of shore shall be float equipped except where established traffic flow requires aircraft to operate beyond gliding distance to shore during takeoffs and landings. Multiengine aircraft operated at a weight that will allow it to climb, with the critical engine inoperative, at least 50 feet per minute, at an altitude of 1,000 feet above the surface may be operated over water without floats. DOI fleet land aircraft may be repositioned (ferried) with only flight crewmembers on board without the required floats.

## 351 DM 2.5

### Aircraft Approval Documents

#### Aircraft Data Cards

**351 DM 2.5 A** (1) Aircraft operated by DOI, except those of the USFS fleet, shall be inspected by an AM-approved inspector and have a current Aircraft Data Card detailing the authorized uses.

(2) Vendor aircraft, excluding those flying point-to-point or high recon missions, shall be approved by an AM-approved/accepted inspector prior to use. (Cards issued by USFS inspectors must meet this requirement).

(3) Cooperator aircraft, other than those from agencies issued agency-wide approval by the AM Director, shall have a current Aircraft Data Card issued by an AM-approved inspector or a letter issued by the respective Regional/Area Director.

#### Approval Duration

**351 DM 2.5 B** (1) All DOI and vendor special use Aircraft Data Cards shall be valid for no more than 18 calendar months.

(2) Aircraft administrative approval documents for point-to-point aircraft and high recon aircraft will be valid for no more than 38 calendar months.

(3) AM will rescind data cards of aircraft failing to maintain required standards.

## **351 DM 3**

### **Flight Crewmember Policy**

#### **General**

**351 DM 3.1** This chapter prescribes flight crewmember policy for all aviation activities within the Department of the Interior (DOI).

## **351 DM 3.5**

### **Administrative Procedures**

#### **Reporting Flight Time**

**351 DM 3.5 A** (1) Crew duty and flight time shall be reported by each flight crewmember and used to administer flight time and duty time limitations. Flight time to and from a duty station as a flight crewmember (commuting) shall be reported and counted toward limitations if it is flown on a duty day. Flight time includes:

- (a) Military flight time,
- (b) Charter,
- (c) Flight instruction,
- (d) Flight reviews,
- (e) Flight examinations by FAA designees,
- (f) Any flight time for which flight crewmembers are compensated, and
- (g) Any other flight time of a commercial nature whether compensated or not.

#### **Duty Limitations**

(2) Flight crewmembers shall be limited to the following flight hour and duty hour limitations. Duty includes flight time, ground duty of any kind, and standby or alert status.

(a) All flight crewmembers shall have two 24-hour periods of rest (off duty) within any 14 consecutive calendar days. In the conterminous United States, these two 24-hour rest periods shall be 2 calendar days off duty. Type I helicopter flight crewmembers may work 14 consecutive days provided they take 7 calendar days off duty before beginning a new 14-day period. This 14/7 schedule will replace the two 24-hour periods off duty in the first sentence for Type I helicopter flight crewmembers when the procurement document specifies. [See OPM-44.]

(b) All flight crewmembers shall have a minimum of 10 consecutive hours of rest (off duty) not to include any preflight or postflight activity prior to any assigned duty period.

(c) Time spent by a flight crewmember going to or from a duty assignment, and not local in character, shall not be considered part of a crew rest period.

(d) For a single-pilot crew, the following limitations apply in addition to (a), (b), and (c) above.

(i) A maximum of 8 hours flight time during any assigned duty period.

(ii) A maximum of 14 consecutive duty hours during any duty period.

(iii) A maximum of 42 hours flight time during any consecutive 6-day period. When a pilot acquires 36 or more flight hours in a consecutive 6-day period, the pilot shall be given the following 24-hour period of rest (off duty) and a new six-day cycle shall begin. In the conterminous United States, this 24-hour period of rest shall be 1 calendar day off duty.

## 351 DM 4 Cooperator Aircraft

Purpose	<p><b>351 DM 4.1 A</b> This chapter prescribes policies and procedures for the use of affiliate aircraft, other Government agency aircraft, and military aircraft (excluding incidental passenger use of military aircraft or when DOI employees are providing assistance at the request of the military during response to a special event; in these cases employees are expected to follow applicable military policy).</p>
Flight Operations Standards and Procedures	<p><b>351 DM 4.1 B</b> (1) Aircraft Equipment. Aircraft must be appropriately equipped for the mission (refer to 351 DM 2.2).</p> <p>(2) Personal Protective Equipment (PPE). All DOI employees shall wear personal protective equipment when flights are to engage in special use activities as defined in the Aviation Life Support Equipment Handbook and required in 351 DM 1.</p>
Administrative Procedures	<p><b>351 DM 4.1 C</b> (1) Reporting Requirements. All use of aircraft under the operational control of the Department shall be reported by the using bureau, utilizing an Aircraft Use Report (Form OAS-23). Refer to 350 DM 1, appendix 5 for the definition of “operational control.” If the flight is at no cost to DOI, “Not for Payment Purposes” shall be noted in the “Other Charges/ Credits” section of the OAS-23.</p> <p>(2) Cost of Inspection. If an on-site inspection is required, the requesting bureau may be required to reimburse AM for the cost of the inspection. If reinspections are required, the cost of the reinspection shall be charged to the DOI bureau making the initial request.</p> <p>(3) Reporting Aircraft Mishaps. The using organization shall ensure aircraft mishaps are reported in accordance with 352 DM 6.</p>
Affiliate Aircraft	<p><b>351 DM 4.2</b> Department of the Interior (DOI) bureau personnel may, for the mutual benefit of the Government and the cooperating party, be nonrevenue passengers/ aircrew members aboard civil aircraft operating in accordance with 14 CFR 91, 121, or 135.</p>
Responsibility	<p><b>351 DM 4.2 A</b> AM must insure the cooperator meets the standards of this chapter. The using bureau shall provide the following information to AM in writing:</p> <ul style="list-style-type: none"> <li>(1) Name and telephone number of the operator to be used.</li> <li>(2) Identification of crew and aircraft.</li> <li>(3) Evidence of liability insurance (minimum requirements of 14 CFR 298.42).</li> <li>(4) Purpose and frequency of intended use and any special equipment requirements.</li> <li>(5) The requesting bureau point of contact.</li> </ul>
Operational Standards	<p><b>351 DM 4.2 B</b> Flight operation standards described in 14 CFR 91 are applicable. Flight plans, flight-following, and flight and duty limitations will be consistent with 351 series of the Departmental Manual.</p>
Flight Crewmember Policy	<p><b>351 DM 4.2 C</b> Pilot requirements, standards, and qualifications shall be in accordance with vendor pilot standards prescribed in 351 DM 3.3.</p>



Maintenance Standards	<p><b>351 DM 4.2 D</b> (1) The aircraft shall have a Standard Airworthiness Certificate in either Normal, Utility, or Transport category.</p> <p>(2) As a minimum, the aircraft shall be maintained to the requirements of 14 CFR 91, annual and 100-hour inspections, progressive, or an FAA-approved inspection program.</p> <p>(3) Time between overhaul (TBO) requirements are located at 351 DM 2.4A (2) (m).</p>
Special Use Request and Approval Procedures	<p><b>351 DM 4.2 E</b> Special use activity flying requires an on-site inspection of records, maintenance, aircraft, and a flight check of the pilot for the intended activity. The bureau is responsible for informing the cooperator of these requirements.</p>
Pilot and Aircraft Cards	<p><b>351 DM 4.2 F</b> Pilots and aircraft approved for flying shall be issued Pilot Qualification Cards and Aircraft Data Cards respectively. These cards will be stamped "Affiliate Only." One-time missions requiring special considerations may be issued a letter of approval in lieu of pilot/aircraft cards by the appropriate AM Region/Area Director, but does not preclude the other requirements of this section.</p>

## 350 DM 1 – Appendix 5 Aviation Management Definitions

Military Aircraft	<p><b>42.</b> An aircraft maintained and operated by an active or reserve component (all Reserve forces, as well as Army National Guard and Air National Guard) of the DOD, or by any active or reserve component of the U.S. Coast Guard (USCG). All references to military aircraft include both DOD and USCG aircraft. The U.S. Government Manual describes the USCG as follows:</p> <p style="padding-left: 40px;">The Coast Guard is a branch of the Armed Forces of the United States at all times and is a service within the Department of Transportation except when operating as part of the Navy in time of war or when the President directs.</p>
-------------------	---

## 351 DM 4 Cooperator Aircraft (Continued)

Military Aircraft	<p><b>351 DM 4.3 Military Aircraft.</b> The intent is to insure, to the maximum extent possible, that agency missions are accomplished and Government policy regarding non-competition with private enterprise is adhered to in all instances.</p>
Policy	<p><b>351 DM 4.3 B</b> (1) AM shall be responsible for making final determination as to availability of commercial resources.</p> <p>(2) Cost factors are not considered justification for use of military aircraft in lieu of available commercial sources. Essentially, if commercial sources are reasonably available and capable of performing the mission, the commercial source shall be used.</p> <p>(3) Memorandums of Understanding (MOUs), or Letters of Agreement, currently in effect which are consistent with this document shall not be affected.</p> <p>(4) A request for immediate transportation in a life-threatening emergency shall be made directly to the military installation.</p>

<p><b>Bureau Responsibility</b></p>	<p><b>351 DM 4.3 C</b> The bureau identifying a projected need for the use of military aircraft shall:</p> <ul style="list-style-type: none"> <li>(1) Coordinate with the Director-AM to assist in a search for commercial source availability.</li> <li>(2) Identify and locate military aircraft capable of meeting identified needs.</li> <li>(3) Initiate a written request for non-emergency use to AM. <ul style="list-style-type: none"> <li>(a) Requests shall include statements which clearly demonstrate that the requirement is in the national interest and which indicates action taken toward obtaining commercial resources.</li> <li>(b) Military support specifically authorized by statute negates the requirement for a statement concerning national interest. The requesting agency must furnish a reference to the appropriate statute.</li> </ul> </li> <li>(4) Submit requests for military aircraft use for operational emergencies (i.e., fire fighting, natural disaster, etc.) directly to AM.</li> <li>(5) Initiate a Letter of Agreement or Memorandum of Understanding (MOU) with the DOD source, after AM secures DOD approval. This agreement shall include: <ul style="list-style-type: none"> <li>(a) Statement which requires the DOD source to provide only those pilots having a minimum of 500 hours pilot time in category (not PIC),</li> <li>(b) Any reimbursement requirements for services provided,</li> <li>(c) Control and support guidelines governing the use of the aircraft, and</li> <li>(d) The method by which the using bureau shall monitor the resources provided.</li> </ul> </li> </ul>
<p><b>Approval</b></p>	<p><b>351 DM 4.3 D</b> Requests shall be processed through bureau channels to the appropriate Assistant Secretary and then to AM for servicing in accordance with 212 DM 12.3. In accordance with DOD policy, AM shall forward requests in writing through the Assistant Secretary -Policy, Management and Budget to DOD.</p>
<p><b>Qualification Cards</b></p>	<p><b>351 DM 4.3 E</b> Aircraft and flight crewmembers shall not be inspected or issued DOI qualification cards.</p>
<p><b>Other Government Agency Aircraft</b></p>	<p><b>351 DM 4.4</b> This section applies to government aircraft of U.S. registry at the Federal, State, and local levels.</p>
<p><b>Authority</b></p>	<p><b>351 DM 4.4 A</b> The use of other Government agency aircraft is subject to the provisions of the Federal Property and Administrative Services Act of 1949, Office of Management and Budget (OMB) Circulars A-76 and A-126, the Economy Act of 1932 (31 USC 1535 and 1536), DOI Manuals 347 DM 9, 350-354 DM, as appropriate, and all appropriate AM OPMS.</p>
<p><b>Operational Standards</b></p>	<p><b>351 DM 4.4 B</b> Flight operation standards described in 14 CFR 91 are applicable. Flight plans, flight following, and flight and duty limitations will be consistent with 351 DM 1.</p>

<b>Flight Crewmember Qualifications</b>	<b>351 DM 4.4 C</b> Pilots shall be qualified in accordance with 351 DM 3.2B and 3.2C for DOI incidental/dual-function pilots.
<b>Maintenance Standards</b>	<b>351 DM 4.4 D</b> Aircraft certificated in normal, utility, transport, or restricted categories shall be maintained in accordance with Federal Aviation Regulations 14 CFR 91, annual and 100-hour inspection, progressive, or an FAA-approved maintenance inspection program. The requirement to comply with specified Time Between Overhaul (TBO) is located at 351 DM 2.4A (2) (m).
<b>Vendor Crews and Aircraft</b>	<b>351 DM 4.4 E</b> Vendor aircraft and crews furnished by other Government agencies shall meet DOI standards.
<b>Responsibility</b>	<p><b>351 DM 4.4 F</b> AM must insure the other Government agency meets the standards of this chapter. The using bureau shall provide the following information to AM in writing:</p> <ul style="list-style-type: none"> <li>(1) Name and point of contact of Government agency to be used.</li> <li>(2) Identification of crew and aircraft.</li> <li>(3) Purpose and frequency of intended use and any special equipment requirements.</li> <li>(4) The requesting bureau point of contact.</li> </ul>
<b>Pilot Aircraft Approval</b>	<b>351 DM 4.4 G</b> Pilot Qualification Cards and Aircraft Data Cards shall be issued. One-time missions requiring special considerations may be issued a letter of approval in lieu of pilot/aircraft cards by the appropriate AM Region/Area Director. However, pilot/aircraft cards need not be issued in those cases where agency-wide approval has been granted by the Director-AM.
<b>Special Use Activity</b>	<b>351 DM 4.4 H</b> Except for agency-wide approval as outlined in paragraph 4.4E above, special use activities require an on-site inspection of records, maintenance, aircraft, and a flight check of the pilot. The bureau is responsible for informing the Government agency of the standards contained in 351 DM 3.2B and 3.2C.
<b>Other Government Agency Revenue Flights</b>	<b>351 DM 4.4 I</b> If these flights are to be paid through the AM system, a fiscal Memorandum of Understanding (MOU) with AM must be in place. This MOU will be predicated on an existing agreement between a DOI bureau and another Government agency.

## 352 DM 1 Aviation Safety Program

<b>Purpose</b>	<b>352 DM 1.1</b> This chapter establishes policy for implementation of the Aviation Safety Program within the Department of the Interior (DOI). The primary objective is the elimination of unnecessary or unacceptable risks associated with the use of aircraft in support of Interior programs.
<b>Policy</b>	<b>352 DM 1.3 A.</b> Aviation safety and aircraft accident prevention in DOI are based on the philosophy that all aircraft accidents can be prevented and that accident prevention is an inherent function of management. Bureau directors are ultimately responsible for the management of aviation resources and the implementation of an effective aircraft accident prevention program. Supervisors and managers at all levels are responsible for the safety of aviation operations under their control. Within this policy are the practical requirements to provide safe working conditions, prevent injuries to employees, and protect property from damage. Application of approved practices is a fundamental responsibility of managers and supervisors and represents an area in which performance and accountability must be emphasized.
<b>Program Promotion</b>	<b>352 DM 1.7</b> Resources shall be made available for education and training as specified in the Aviation User Training Program. Attendance at aviation user, management, and aviation safety management training sessions, as well as aviation safety seminars and formal education institutions, shall be encouraged. [See OPM-4 below.]
<b>Aircraft Mishap Prevention Plan</b>	<b>352 DM 1.9</b> Each bureau is encouraged to have a formal written Aircraft Mishap Prevention Plan consistent with Departmental policy. It should outline personnel responsibilities and provide implementation guidelines, goals, and methods utilized to monitor the success of the program. Safety requirements set by the Department shall not be waived. Should a deviation of an established safety procedure or directive occur, the individual(s) involved shall furnish the bureau Aviation Safety Manager with a complete report of the circumstances as soon as possible after the event.
<b>Wire Strike Prevention</b>	<b>352 DM 1.9 D. (2)</b> Risk Assessments/Hazard Maps. To reduce wire strike potential, it is critical that a risk assessment be conducted prior to all low-level flights. A low-level flight hazard map shall be constructed for the local operational area. All preplanned low-level flights require a thorough map reconnaissance of the route to be flown.
<b>Weight and Balance</b>	<b>352 DM 1.9 H.</b> It is imperative that proper consideration and planning be given to the aircraft weight and balance computation and subsequent loading. The actual weight of personnel and/or cargo must be considered relative to environmental and aircraft performance capabilities. This will be accomplished for each takeoff and landing for all aircraft. The formality for the documentation of this effort will be the bureau conducting the operations.

## OPM-4

### Aviation User Training Program

<b>Purpose</b>	.1 This OPM establishes the Interior Aviation User Training Program as called for in Departmental Manual 112 DM 12.2.I. Emphasis is placed on increasing employee knowledge of DOI aviation and accident prevention policy, procedures, and safe operating practices. This document identifies minimum aviation management and user training requirements for United States Department of the Interior (DOI) and other personnel participating in aviation activities conducted by DOI.
<b>Introduction</b>	.2 Within the body of this document, the use of the term "bureau" is intended to represent all Interior operating entities such as service, office, survey, etc. All bureaus within DOI utilize aircraft in support of mission accomplishment of their programs and projects. The safe, efficient, and effective utilization of aviation resources is a Departmental objective. Increasing aviation awareness through educational and training program efforts is one method of obtaining this objective.
<b>Authority</b>	.3 Authority is authorized under Departmental Manual 112 DM 12, 352 DM 1, and 485 DM 1; and Secretarial Order 3250 dated September 30, 2003.
<b>Responsibilities</b>	.4 The education and training of DOI personnel at all organizational levels is the responsibility of management. Managers and supervisors must be aware of Departmental policy as it relates to aviation programs for which they are responsible. Oversight of this critical aviation accident prevention effort requires a balanced partnership between DOI Aviation Management and bureau management.
<b>Bureau Responsibilities</b>	<p><b>A. Bureau Responsibilities.</b> Bureaus are responsible for ensuring that all employees involved in the use or control of aviation resources receive an appropriate level of aviation safety training. The education and training listed is the minimum for promoting aircraft accident prevention awareness and developing operational and management skills. Identification, development, and presentation by bureaus of additional training needs unique to their specific programs shall be accomplished as required. To facilitate standardization and prevent duplication of effort, the DOI Aviation Management Associate Director shall be informed of training program development of these specific programs.</p> <ol style="list-style-type: none"> <li>1. Managers shall provide adequate resources and time for employees and those over whom they have operational control to effectively perform their jobs not only in a safe manner, but with a high degree of professionalism and appreciation of the economic impact aviation has upon project operations: <ol style="list-style-type: none"> <li>(a) Ensure appropriate employees attend required DOI aviation training.</li> <li>(b) Manage bureau participation in the Interagency Aviation Trainer (IAT) program.</li> <li>(c) Provide DOI Aviation Management with required documentation for reporting aviation training. This includes providing DOI Aviation Management Headquarters with a course training schedule via the Interagency Aviation Training website (<a href="http://iat.nifc.gov">http://iat.nifc.gov</a>) or notification to Area/Regional offices.</li> <li>(d) Enter student course completion information on the IAT website or submit the OAS-106, Aviation Course Presentation Record (Appendix 2), to Area/Regional offices immediately after training classes have been presented.</li> </ol> </li> </ol>

- (e) Coordinate the Interagency Aviation Trainer program and other required training activities with DOI Aviation Management Area/Regional offices. Provide information on other aviation training courses to DOI Aviation Management Area/Regional offices.

**AM  
Responsibilities**

**AM Aviation  
Management  
Training Office**

**DOI Aviation Management Responsibilities.** DOI Aviation Management is responsible for developing, implementing, and maintaining an aviation training program to meet Department-wide and selected bureau-specific needs.

1. **DOI Aviation Management Headquarters Training Office.** The DOI Aviation Management Training Office has national responsibility for:
  - (a) Developing, managing, and maintaining the aviation training curriculums to meet Departmental aviation user training needs through coordination with bureaus and DOI Aviation Management Area/Regional customers.
  - (b) Providing module and instructor standardization for the DOI Aviation User Training Program.
  - (c) Administrating the DOI aviation training schedule on the IAT website.
  - (d) Coordinating, facilitating, and presenting national level training.
  - (e) Supporting DOI Aviation Management Area/Regional aviation training needs.
  - (f) Developing, overseeing, and maintaining the IAT program standards and curriculums.
  - (g) Administrative oversight of an electronic database of DOI Aviation Management and IAT course presentation accomplishments including training courses presented by title, instructor, date, and location of training and number of trainees by bureau.

**AM Area/  
Regional Offices**

2. **DOI Aviation Management Area/Regional Offices.** DOI Aviation Management Area/Regional offices are responsible for the following functions within their geographic area of responsibility:

- (a) Implementing the DOI Aviation User Training Program in cooperation with bureau and interagency partners including coordination, facilitation, and presentation of established aviation training courses.
- (b) Identifying with the bureau the need for IATs and selecting, qualifying, scheduling, evaluating and certifying the IATs within their geographic area of responsibility. Providing DOI Aviation Management Headquarters with a list of current IATs by September 30 annually.
- (c) Providing input to DOI Aviation Management Training Office regarding the development and maintenance of training courses/materials coordinated with bureau and interagency customers.
- (d) Providing headquarters with an electronic database of course presentation accomplishments by October 31 annually.
- (e) Providing headquarters with course/class schedule information.

**.5 Required Aviation Safety Training for Persons Involved in DOI Aviation Operations or Flight Activities.** Required, recommended, and alternative training and currency requirements for each group listed below are outlined in the Appendix 1.

**A. Mandatory Training for In-Flight Activities.**

(1) Aircrew Members. . Person working in and around aircraft and is essential to ensure the safety and successful outcome of the mission. Aircrew members are required to either be on board/or attend to the loading and unloading of passengers and cargo at all landings and takeoffs, attend to external loads, and ensure that passengers have received a safety briefing prior to all special use mission.

-Objective. Provide a minimum level of aviation safety training prior to being allowed to participate in special use flight activities. This training consists of the knowledge, and awareness necessary to work in and around aircraft without undue risk to themselves, to fellow employees, or to the public, and responsibilities for the safety of passengers. Aircrew members are required to either be on board or/attend to the loading and unloading of passengers and cargo at all landings and takeoffs and provide passengers with a safety briefing prior to all special use missions. Aircrew members are required to complete mandatory training every 3 years. Mandatory (minimum) modules of basic aviation safety training include:

A-101 Aviation Safety  
A-105 Aviation Life Support Equipment  
A-106 Aviation Mishap Reporting  
A-108 Pre-Flight Checklist and Briefing/Debriefing,  
A-113 Crash Survival

**Passengers**

(2) Passengers. Any person aboard an aircraft who does not perform the function of a flight crew/pilot or aircrew member. Passengers must receive a briefing by an aircrew member for all special use missions. Additionally, an aircrew member is required to either be on board or/attend to the loading and unloading of passengers and cargo at all landings and takeoffs to ensure the safety of the passengers for all special use missions. This includes individuals who must participate in special use flight activities on very short notice, on an irregular basis, without having attended basic aviation safety training. These are rare situations where (1) the flight must remain in the special use category due to mission parameters, and (2) it is not possible or practical to provide the required basic aviation safety training to participating personnel prior to the flight. Examples of individuals who may fit this category might include senior line managers conducting an observation, reconnaissance, or orientation flight, cooperators, other Government agency personnel, or members of Congress. Passengers participating in point-to-point or non-special use missions must, at a minimum, receive a safety briefing by the flight crew/pilot.

-Objective. Provide a minimum level of knowledge for passengers. The mandatory elements of this safety-of-flight briefing shall include: (See 14 CFR Part 135.117 for additional requirements.)

(a) Passenger safety briefing to include the Interagency Aviation User Pocket Guide (NFES 1373).

(b) Safety briefing to be performed on every flight.

(c) Use of personal protective equipment and aviation life support equipment, if appropriate.

**OPM-4:  
(continued)  
Flight Crew/Pilot**

(3) Flight Crew/Pilot. Individuals functioning as GS 2181, dual-function, or incidental pilots.

-Objective. Knowledge required includes Departmental policies and procedures regarding aviation operational standards and criteria, as well as aviation mishap analysis and aircraft accident prevention techniques. See Appendix 1 for training requirements.

**Interagency  
Aviation  
Trainers  
(IATs)**

(4) Interagency Aviation Trainers. Individuals certified to instruct the Interagency Aviation Training program curriculum. IATs will be certified to instruct "A" courses at three levels: basic, intermediate, and advanced. Additional certification is required for those instructing the water ditching and survival training

-Objective. Knowledge required includes Departmental policies and procedures as well as IAT program curriculum and presentation skills. Interagency Aviation Trainers must complete the course A-220, DOI Aviation management Train-The-Trainer (or M-410 Facilitative Instructor) and/or successfully instruct under the supervision of the DOI Aviation Management National Aviation Training Officer (or designee) or the DOI Aviation Management Specialist (or designee) for initial certification. Interagency Aviation Trainers must attend the course A-222, Interagency Aviation Trainer Currency, or instruct under the supervision of a DOI Aviation Management Program Specialist every three years to maintain their certification.

**Water Ditching  
And Survival  
Instructors**

(5) Water Ditching and Survival Instructors. Individuals certified to instruct the courses A-312, Water Ditching and Survival. Instructors must meet the minimum standards listed in paragraphs (a) through (g) below.

Objective. Knowledge required includes DOI Aviation Life Support and Equipment policy and demonstrated skill in presenting the A-312 course curriculum and safety procedures associated with providing pool exercises. This will be accomplished during the course A-223, Water Ditching and Survival Train-the-Trainer, with follow-up onsite visits if necessary.

(a) Successfully complete the A-312 course as a student.

(b) Hold a current CPR and Basic First Aid certificate.

(c) Must be certified in one of the following: scuba diver (PADI, or AMD-approved equivalent), Basic Water Rescue, or lifeguard (Red Cross, or AMD-approved equivalent).

(d) Must attend the course A-223, Water Ditching and Survival Train-the-Trainer, provided by DOI AM. Basic Water Rescue will be included in the curriculum if necessary. A qualified instructor will mentor an instructor trainee. Mentoring will be performance based. During the mentoring process, the instructor trainee will be required to:

- (i) Observe/assist the qualifying instructor presenting the entire course.
- (ii) Solo instruct under the supervision of the qualified instructor.
- (iii) Demonstrate thorough knowledge of emergency procedures.

(e) Must maintain the currency listed below.

- (i) Instruct the classroom portion of A-312 a minimum of once every two years.
- (ii) Instruct the pool portion of A-312 a minimum of once every two years.



	<p>(iii) <b>Aviation Management Instructors only:</b> Attend a commercial water egress program at least once every three years (for example, the U.S. Navy facility at Pensacola, FL, or MSTC in Lafayette, LA). Information regarding new techniques and technologies will be transferred to bureau instructors.</p>
	<p>f) Instructors whose qualifications have lapsed must meet the following requirements:</p> <ul style="list-style-type: none"> <li>(i) Demonstrate proficiency under the supervision of a AMD instructor.</li> <li>(ii) Demonstrate thorough knowledge of emergency procedures.</li> </ul>
	<p>(g) In support of customer missions requiring underwater breathing apparatus (i.e. Helicopter Emergency Egress Device [HEEDS]), complete the requirements listed below:</p> <ul style="list-style-type: none"> <li>(i) Basic level SCUBA (PADI or equivalent)</li> <li>(ii) Commercial or military underwater aircraft egress training center course</li> <li>(iii) Emergency spare air training (HEEDS or equivalent)</li> </ul>
<b>Personnel with Aviation Responsibilities</b>	<p><b>B. Mandatory Training for Personnel with Aviation Responsibilities.</b> Those individuals having management or supervisory oversight responsibilities for programs using aviation resources for mission accomplishment, aviation personnel, flight activities, etc., fit within this broad category requiring selected training. In addition, Interagency Aviation Trainers, contracting personnel, and others also require initial and currency training within this program.</p>
<b>Supervisory Personnel</b>	<p>(1) Supervisory Personnel. Those who supervise employees who use aircraft to accomplish bureau programs.</p> <p>-Objective. Knowledge required includes aviation safety, policy, risk management, and supervisory responsibilities. Must attend the AM Aviation Management for Supervisors training course or the following Interagency Aviation Training program modules every three years:</p> <ul style="list-style-type: none"> <li>A-107 Aviation Policy &amp; Regulations I</li> <li>A-201 Overview of Safety &amp; Accident Prevention Program</li> <li>A-205 Risk Awareness</li> <li>A-302 Personal Responsibility &amp; Liability</li> <li>A-303 Human Factors in Aviation,</li> <li>A-305 Risk Management</li> <li>A-307 Aviation Policy &amp; Regulations II</li> </ul>
<b>Line Managers</b>	<p>(2) Line Managers. Those who are responsible and accountable for using aviation resources to accomplish bureau programs.</p> <p>-Objective. Knowledge required includes familiarization with the DOI aviation management program, policies, and related requirements and responsibilities. Must attend the AM Aviation Management Training for Supervisors training course or attend an AM line managers briefing course every three years.</p>
<b>Aviation Managers, Coordinators, Specialists, and Collateral Duty Personnel</b>	<p>(3) National Aviation Managers, Bureau/Regional/State/Area Aviation Managers, Aviation Coordinators/Specialists, Aviation Safety Managers, and Collateral Duty Aviation Safety Personnel. Personnel who plan, organize, direct, control, oversee, or administer aviation or aviation safety programs within the bureaus.</p> <p>-Objective. Knowledge required includes DOI aviation management, aviation safety, and aircraft accident prevention management principles and techniques and related policies in order to positively effect loss control measures. For required training, see the Appendix 1.</p>

**Contracting  
Officer's Reps  
and Technical  
Reps**

(4) Contracting Officer's Representatives (COR; formerly COAR) and Technical Representatives (COTR). Individuals designated by the AM Contracting Officer (CO) to monitor aviation services contract performance for administrative (COR) and technical (COTR) provisions of the contract.

-Objective. Knowledge required includes DOI aviation policy, basic contract administration, and methods for verifying the work performed upon which payment is based and technical aspects of the contract. Initial requirement (24 hours) shall be obtained prior to designation as a COR or COTR. Currency training (8 hours) every 3 years. For required training, see the Appendix 1.

# IAT Requirements Matrix

November 4, 2004

\*Interagency Aviation User Pocket Guide (NFES 1373).

X=Requires completion once.

No.	Modules	Passenger*	Aircrew Member	Flight Crew/Pilot	Fixed-Wing Manager	Fixed-Wing Manager Special Use	Helicopter Manager (+see COR)	Aviation Dispatcher	Project Aviation Mgr	Unit Aviation Mgr	Aviation Mgt Spec	Reg/State/National Aviation Manager Supervisor	Agency Administrator	COR/PI	Vendor Pilot	Aviation Tech Spec
A-101	Aviation Safety (all aircraft)		3	X	3	3	X		X	3	X	X	X		0	3
A-103	FAA NOTAM System							X		X	X	X				
A-104	Overview of Aircraft Capabilities & Limitations		AS		AS	AS	AS	X	AS						0	
A-105	Aviation Life Support Equipment		3	X	3	3	X		X	3	X	X	X		0	3
A-106	Aviation Mishap Reporting		3	X	3	3	X	X	X	3	X	X	X	X	0	
A-107	Aviation Policy & Regulations-I		AS	AS	AS	AS	X	X	X	3	X	X	X		0	
A-108	Preflight Checklist & Briefing/Debriefing		3		3	3	X		X	3	X	X	X			
A-109	Aviation Radio Use		AS			AS	AS	X	AS	X	AS				0	
A-110	Aviation Transportation of HAZMAT (if involved)		3	3	3	3	3	3	3	3	3				0	3
A-111	Flight Payment Document			AS	3	3	X	X	X	X	AS	X		X	0	
A-112	Mission Planning & Flight Request Process				3	3	X	X	X	X	AS	X				
A-113	Crash Survival		3	X	3	3	X		X	3	X	X	X		0	3
A-114	Introduction to Human Factors (under development)		AS		X	X	X	X	AS	X	X	X	X		0	
A-115	Automated Flight Following (under development)			X	AS	X	X	X	AS	X	X	X	AS		0	X
A-200	Annual Mishap Review		1	1	1	1	1	1	1	1	1	1	1	1	0	1
A-201	Overview of Safety & Accident Prevention Program						X		X	X		X			0	X
A-202	Interagency Aviation Organizations			AS			AS	X	AS	X	X	X			0	X
A-203	Basic Airspace					AS	AS	X	AS	X	AS	X				
A-204	Aircraft Capabilities & Limitations				AS	X	AS	X	X	X	AS	X				
A-205	Risk Awareness		AS	AS	AS	X	X	X	X	X	X	X	X			X
A-206	Aviation Acquisition and Procurement					AS	X	X	X	X	X	X		X		
A-207	Aviation Dispatching						AS	X	AS			AS				
A-208	Aircraft and Pilot Approval (under development)			X						X	X	X				
A-209	Helicopter Operations (+helo aircrew only)		AS+				X									
A-210	Helicopter Field Exercises (+helo aircrew only)		AS+				X									
A-211	Project Aviation Plans						X		X	X	AS	X	AS			
A-212	Aircraft Rental Agreement/Blanket Purchase Agreement						X	X	X	X		X		X		X
A-218	Aircraft Pre-Use Inspection						X	X	AS	AS	X		X		X	
A-219	Helicopter Transport of External Cargo		AS				AS		AS						0	
A-220	Train-The-Trainer															
A-221	Advanced Trainer Competency															
A-222	Interagency Aviation Trainer Currency															
A-223	Water Ditching and Survival Train-The-Trainer															
A-300	Aviation Lessons Learned			X			3			X		3				
A-301	Implementing Aviation Safety & Accident Prevention					AS	X		X	X	X	X				
A-302	Personal Responsibility & Liability		AS	AS		X	X	AS	X	X	X	X	X	X		3
A-303	Human Factors in Aviation		AS	3		X	X	X	AS	X	X	X	X			
A-304	Aircraft Maintenance			AS			X							X		
A-305	Risk Management			3		AS	X	X	X	X	X	X	X			
A-306	Aviation Contract Administration Parts I & II						X					X		3		
A-307	Aviation Policy and Regulations-II			X		AS	AS	X	X	X	X	X	X			
A-308	Aviation Policy and Regulations-III								AS	X	AS	X				
A-309	Helicopter Flight Manuals (under development)						2									
A-310	Overview of Crew Resource Management		AS	AS		X	X	AS	X	X		AS				
A-311	Unit Aviation Planning (under development)									X		X				
A-312	Water Ditching and Survival** (beyond power-off gliding)		AS	AS		AS	AS									AS
A-313	Aviation Security (proposed)			AS		X	X		X	X	X	X				AS
A-314	Aviation Prog Overview for FS Agency Administrators													X		
A-401	Management of Aviation Safety Programs			AS					AS	AS	AS	AS	AS	AS		
A-403	Human Factors for Aviation Managers (under development)			AS		AS	AS		AS	AS	AS	AS			0	
A-410	Crew Resource Management			AS		AS	AS				AS					
	Mission-Specific Training as Required by Agency		AS			AS	AS		AS	AS	AS	AS				

\*\*For those who fly beyond power-off gliding distance from shore.

1=Requires completion every year.

AS=When specified by DOI bureaus or U.S. Forest Service.

2=Requires completion every 2 years.

O=Optional training.

3=Requires completion every 3 years.

## 353 DM 1

### Aircraft Contracting

<b>Purpose</b>	<b>353 DM 1.1</b> The purpose of this chapter is to establish policy and procedures for the acquisition of aircraft and aircraft-related services of Departmental programs.
<b>Covered Services</b>	<b>353 DM 1.2</b> The Aviation Management (AM) is responsible for the acquisition of aircraft and commercial aviation services in support of Departmental programs as follows:
<b>Flight Services</b>	<p><b>353 DM 1.2 A.</b> All flight services shall be acquired through AM with the exceptions listed below. AM may provide acquisition services for these exceptions upon request. [See OPM-35 below.]</p> <ul style="list-style-type: none"> <li>(1) Seat fare on flights with scheduled air carrier.</li> <li>(3) Transactions to acquire an end product or service other than flight services which meet the following criteria: <ul style="list-style-type: none"> <li>(a) Technical expertise to manage the project resides exclusively within the bureau (aerial photography, seed/fertilizer, herbicide application, etc.),</li> <li>(b) Aircraft or crew specifications will not be identified in the end product procurement,</li> <li>(c) No aircraft or pilot approval will be specified. If aircraft or pilot requirements or approval is required in the contract, the bureau will collaborate with AM on specifications and approval. AM participation will be on a cost reimbursable basis,</li> <li>(d) DOI does not have operational control of the aircraft, and</li> <li>(e) No DOI personnel are aboard the aircraft, and</li> <li>(f) The aircraft is operated entirely within the applicable 14 CFR as a civil aircraft</li> </ul> </li> </ul>
<b>Other Services</b>	<b>353 DM 1.2 B.</b> Other aviation-related services such as the purchase of aircraft components, parts and accessories, maintenance services, etc. shall be procured through the AM procurement system. Bureaus may also purchase equipment from GSA schedules for permanent installation on fleet aircraft when coordinated with AM Fleet Management (in Alaska, coordinate with the Chief, Division of Aircraft Maintenance) If the value of the equipment exceeds \$5,000, the equipment must be transferred to AM on Form DI-104. This paragraph is not intended to cover convenience items such as wing covers, portable heaters, or pilot personal equipment such as headsets, helmets, map holders, etc.
<b>Request Procedures</b>	<b>353 DM 1.3</b> Requirements exceeding \$25,000 shall be submitted on Form OAS-13, Request for Contract Services, and signed by an officer authorized to obligate funds for the requesting bureau.

# OPM-35

## Identification of End Product/Service and Flight Service Procurement

<b>Purpose</b>	.1 This OPM establishes policy and procedures for the identification of projects for end product/service or flight service contracting.
<b>Authority</b>	.2 This policy is established by the Director, AM, in accordance with provisions of Departmental Manual 350 DM 1.
<b>Definitions:</b>	.3 This OPM has adopted the definition as stated in 49 CFR 175.5.
<b>Operational Control</b>	<p>A. Operational Control. An aircraft is under the exclusive direction and control of a government when the government exercises responsibility for:</p> <p>(1) Approving crewmembers and determining that they are qualified to operate the aircraft;</p> <p>(2) Determine the airworthiness and directing maintenance of the aircraft; and</p> <p>(3) Dispatching the aircraft, including the times of departure, airports to be used, and type and amount of cargo to be carried.</p>
<b>Civil Aircraft</b>	B. Civil Aircraft. See 14 CFR 1.1.
<b>Public Aircraft</b>	C. Public Aircraft. See 14 CFR 1.1.
<b>Dispatch</b>	D. Dispatch. To assume operational control through the use of specific times of departure, airports to be used, amounts of people and cargo to be moved, intended time of arrival and/or flight following. Dispatching does not include the specification of windows of opportunity for maximum effect for seeding, spraying, animal capture, or aerial photography
<b>Policy:</b>	.4 A. As stated in 353 DM 1.2A, all "flight services" shall be acquired through AM with exceptions listed. Transactions to acquire an "end product "or "service" other than "flight services" shall meet all of the criteria listed in 353 DM 1.2A(3). Examples:
<b>End Product or Service other than Flight Services</b>	<p>(1) Seeding project. The using bureau requires the contractor to wear PPE (operational control, flight service). The same project is completed with no government involvement other than verifying the spread rate of the seed (end product contract).</p> <p>(2) Horse gather. The bureau has a helibase manager on site to manage the heliport (operational control, flight service). Same project with the contractor delivering horses to a bureau-designated location and no government personnel involved other than the inspection of the horses (end product contract).</p> <p>(3) Wolf capture, net gun. The bureau has a biologist on board the aircraft (DOI personnel on board, flight service). Same project with all contract personnel and animals delivered to a bureau-designated location (end product contract).</p>

OPM-35:

Identify End  
Product/  
Service or Flight  
Service

.4 B. The following table provides some guidance to identify end product/service or flight service procurement. If the answer is **YES** in any block under a project, you have a flight service that must be procured through AM.

<i>Project</i>	<i>Aerial photo remote sensing</i>	<i>Aerial application (spray/seed)</i>	<i>Aerial ignition</i>	<i>Animal inventory</i>	<i>Animal capture (net gun, dart, paintball, etc.)</i>	<i>Animal herding/gathering</i>	<i>Your project</i>
Set pilot standards							
Direct aircraft maintenance							
Dispatch aircraft							
Helibase manager							
Aircraft manager							
Use of PPE							
DOI personnel on board							
Public aircraft							
Other aircraft and pilot requirements							

## 353 DM 1 – Appendix 1

### Functional Statements

<b>AM Responsibility</b>	<b>A. AM responsibility.</b>
<b>Contracting Officer (CO)</b>	<p>The CO is responsible for all contract actions including contracting procedures and methods, contract legality with existing laws and regulations, contract administration and terminations. The CO may delegate certain contract administration functions. The CO is the only individual who may modify or change a contract provision. In the contract administration function, decisions on claims and disputes are final, appealable only to the Board of Contract Appeals or the U.S. Court of Federal Claims.</p>
<b>Contracting Officer's Technical Representative (COTR)</b>	<p><b>B. AM responsibility.</b></p> <p>The COTR is directly responsible to the CO for assuring compliance with the technical provisions of the contract. The COTR conducts initial inspections and approves the contractor's equipment, facilities, and personnel prior to, and periodically during, contract performance. The COTR may discuss changes or modifications in equipment or other requirements of the contract, but may not commit the Government to such changes, modifications, or adjustments.</p>
<b>Bureau Responsibility</b>	<b>C. Bureau responsibility unless established otherwise by agreement.</b>
<b>Contracting Officer's Representative (COR)</b>	<p>The COR is directly responsible to the CO for monitoring contract performance. Primary responsibility of the COR is to assure compliance with the administrative provisions of the contract. The COR maintains communications with the contractor in day-to-day operations and represents the CO in making minor allowances which do not modify the price, or other provisions of the contract. The COR recommends to the CO proposed changes and adjustments to the contract in order to meet the demands of the work project. The COR is responsible for verifying the work performed upon which payment is based.</p>
<b>Project Inspector (PI)</b>	<p><b>D. Bureau responsibility unless established otherwise by agreement.</b></p> <p>The project inspector is designated by the COAR to assist in implementing the COAR's instructions, as required. Responsibilities of the PI generally include:</p> <ol style="list-style-type: none"> <li>(1) Verifying services performed by the Contractor.</li> <li>(2) Ensuring Contractor's compliance with contract specifications and provisions.</li> <li>(3) Discussing daily work requirements and ordering service within the contract provisions.</li> <li>(4) Discussing the problems which occur with the contractor and recommending proposed solutions to the COAR.</li> <li>(5) Maintaining a log or written record of the administration of the contract, noting work assignments, equipment failure, etc. Any problems of a serious nature are immediately brought to the attention of the COAR.</li> </ol>

## 353 DM 2

### Aircraft Rental System

<b>Purpose</b>	<b>353 DM 2.1</b> This chapter establishes procedures for utilization of the Aviation Management (AM) Aircraft Rental System by Department of the Interior (DOI) bureaus and by other cooperating governmental agencies.
<b>Policy</b>	<b>353 DM 2.2 A.</b> All commercial aviation services required by any bureau or office of the Department of the Interior (with the exception of those services listed under 353 DM 1.2A) shall be acquired through the procurement process of the Department's Aviation Management (AM). This precludes a DOI bureau or office, or any subdivision thereof, from utilizing a Government Transportation Request (GTR), SF -44, credit card, or similar small purchase method to procure aviation services other than by seat fare from commercial carriers. In Alaska the scheduled air carrier shall be certificated in accordance with 14 CFR 121.
<b>OAS-23</b>	<p><b>353 DM 2.2 B.</b> The aviation services provided to the using bureau shall be documented on an Aircraft Use Report (Form OAS-23). The accomplished OAS-23 will be submitted to AM for payment to the appropriate vendor of the aviation services utilized.</p> <p><b>353 DM 2.2 C.</b> The procurement and payment process does not preclude aircraft charter services required to meet life-threatening emergencies. Under such circumstances, bureaus are authorized to use the charter procedures set forth in the Federal Property Management Regulations (FPMR) under subpart 101-41.2, Transportation Services Furnished for the Account of the United States.</p>
<b>Limitations</b>	<b>353 DM 2.3</b> Individual transactions under this system shall not exceed the \$25,000 unless authorized by the AM Contracting Officer. Requirements aggregating more than the \$25,000 shall not be separated into several transactions that are less than the limit merely to permit use of this system. Procedures for requesting aviation services in excess of \$25,000 are contained in 353 DM 1.
<b>Aircraft Rental Agreements (ARAs)</b>	<p><b>353 DM 2.4 A.</b> Aircraft Rental Agreements have been established with private sector operators throughout the conterminous United States, Alaska, Hawaii, Puerto Rico, and the Virgin Islands, based on user needs. A BOA is not a contract; it is a written instrument of understanding, negotiated between the contracting office and a vendor that <b>contains</b>:</p> <ol style="list-style-type: none"> <li>(1) Terms and clauses applying to future contracts (orders) between the parties during its term,</li> <li>(2) A description, as specific as practicable, of supplies or services to be provided, and</li> <li>(3) Methods for pricing, issuing, and delivering future orders under the BOA.</li> </ol>
<b>Vendor Requirements</b>	<p><b>353 DM 2.4 B.</b> To be eligible for inclusion in the Aircraft Rental System, a vendor must:</p> <ol style="list-style-type: none"> <li>(1) Be certificated by the Federal Aviation Administration (FAA) as stated in 351 DM 1, Vendor Certification.</li> <li>(2) Maintain current passenger liability insurance coverage meeting DOI requirements. These are based on requirements specified in 14 CFR 298.42 for air taxi operators.</li> <li>(3) Offer acceptable rates and conform to the terms and conditions stipulated in the AM Aircraft Rental Agreement.</li> <li>(4) Complete an initial business meeting with DOI officials to discuss procedures, safety expectations and the problem resolution process.</li> <li>(5) Successfully pass AM facility, equipment, and personnel inspections if conducting special-use activities.</li> </ol>
<b>Vendor Aircraft Source List</b>	<b>353 DM 2.4 C.</b> AM publishes an automated listing of vendors and aircraft under agreement. System users may request additional operators be considered for inclusion in the system by submitting Form OAS-20, Request for Rental Services, to the appropriate AM Flight Coordination Center.



## 353 DM 2.5

### Ordering Flight Services

<b>Authority</b>	<p><b>353 DM 2.5 A.</b> Services under the AM Aircraft Rental System may only be procured from vendors approved under the ARA. Orders may be placed through the appropriate AM Flight Coordination Center or directly with an approved vendor. Payments for orders placed directly with an approved vendor shall be processed through the AM payment system using the Form OAS-23. Bureau personnel placing orders must have bureau authorization.</p>
<b>Procedures</b>	<p><b>353 DM 2.5 B.</b> When placing an order directly with a vendor, the ordering official shall ensure that:</p> <ul style="list-style-type: none"> <li>(1) The vendor and aircraft being considered are on the AM Source List.</li> <li>(2) Pilot and aircraft offered by the vendor are approved for the mission to be flown.</li> <li>(3) Competition (cost comparison) is documented in accordance with Federal Acquisition Regulations Part 13 requirements in selection of the vendor. Pricing information contained in the AM Source List may be used for this purpose. Documentation supporting the selection should be retained by the ordering office.</li> <li>(4) Bureau users are instructed to verify by visual inspection that the pilot has an Interagency Pilot Qualification Card and the aircraft contains an Interagency Aircraft Data Card authorizing the mission to be flown.</li> <li>(5) Instructions for placing orders (contained on the Source List) and documenting services (contained in the Aircraft Use Report, Form OAS-23, booklet) are followed.</li> </ul>
<b>OMB Circular A-126</b>	<p><b>353 DM 2.6</b> The using bureau is responsible for compliance with OMB Circular A-126, Improving the Management and Use of Government Aircraft.</p>
<b>Payment Procedures</b>	<p><b>353 DM 2.7</b> The using bureau shall complete Form OAS-23, Aircraft Use Report, in cooperation with the vendor at the time of use. The Government representative shall verify services entered on the form were received, sign for such services, and enter agency-funding information. The original of this form shall be submitted to AM, Boise (conterminous 48 states) or Alaska (Alaska and Hawaii) as the contractor's invoice and the Government receiving report. AM pays the vendor and bills the bureau for services performed.</p>

## OPM-6

### Services Provided, User Rates, and Collection Policies

Purpose	<p>.1 This OPM identifies services available through the Aviation Management (AM) and establishes costs to the using bureau or office for the requested services.</p> <p><b>A. Office of the Secretary Appropriation.</b> AM receives a direct appropriation to provide oversight of Department-wide aviation policies and procedures.</p>
Working Capital Fund	<p><b>B.</b> Most services furnished by AM to ordering and using bureaus are financed through the operation of a Working Capital Fund (revolving fund). The enabling legislation dictates the Working Capital Fund (WCF) must recover all costs of operations. This is normally accomplished through a process of billing for services provided on a direct expense basis (paid to vendor, etc.) plus an appropriate administrative overhead expense on the requested services. For DOI customers, the administrative expense will be paid annually at the bureau level and AM bills to field users will reflect no additional surcharge amount. For non-DOI customers, AM will continue to bill on the basis of direct costs, plus the appropriate percentage for administrative overhead expense unless an agreement with AM specifies a different payment plan.</p>
Technical Services Provided	<p><b>.2 Technical, Safety, and Training Services Provided Through the Working Capital Fund.</b> Services currently available to the requesting DOI bureau or office as part of the total aviation support provided by AM to the Department includes items such as:</p> <p><b>A. Aviation Management and User Safety Training.</b> This activity includes aviation use, safety, and management training for all DOI employees involved with programs using aviation services. Training ranges from elementary safety through technical programs such as transportation of freight, hazardous materials, rappelling, helitorch, and aviation management courses. The technical programs also include hosting DOI pilot workshops and standardization of DOI pilots employed by various bureaus of the Department.</p> <p><b>B. Aviation Safety.</b> This activity includes hazard identification within a proposed or existing aviation operation, policy, or procedure; providing DOI (bureau/agency) management a risk assessment of aviation operations as a tool to assist them in developing sound aircraft accident prevention measures within their aviation programs; inspection and evaluation of aviation operations, including maintenance and fueling facilities and hazardous materials transportation by aircraft; investigation of all DOI aircraft mishaps; maintenance and analysis of aircraft accident and incident data; providing recommendations resulting from aviation mishap analysis which is oriented to aircraft accident prevention measures and reduction of personnel injuries or deaths.</p> <p><b>C. Transportation Studies.</b> AM can assist any DOI bureau with a study of the total region, area, or state transportation needs. The result will be a report to management on the most safe, cost effective, and efficient method of meeting transportation needs.</p> <p><b>D. Aviation Technical Services.</b> This activity includes flight checking DOI pilots for proficiency; development of technical specifications for aircraft contracting; research of specialized equipment requirements; advisory services with respect to cost/benefit comparisons of various equipment options; and assistance to bureaus in the field with respect to technical operational problems.</p>

OPM-6:  
(continued)

**Aircraft Services  
Provided**

**.3 Aircraft Services to DOI Bureaus.** Bureaus using aircraft, aircraft services, and other related services provided by AM will pay the costs for these services. One of the major benefits of having centralized aircraft procurement is the extensive Management Information System (MIS) available to all offices using the Aircraft Use Report (OAS-2 and OAS-23) flight reporting and payment system. This system can be of great assistance in management decisions based on past data or forecasts for the future. The available services, rate computations, and payment and collection policies are as follows:

**Fleet Services**

**A. AM Fleet Aircraft Services**

**(1) General Utility Aircraft.** General utility aircraft are defined as a fleet of aircraft owned, operated, and maintained by AM, under operational control of AM, and available on an as-needed basis.

**(2) Project Aircraft.** Project aircraft are aircraft owned by AM, but crewed by a bureau and assigned to that bureau for exclusive use and operational control for an extended period of time (up to one year). Assignments will be made on the basis of a negotiated written agreement between the AM Director, or the AM Alaska Regional Director, and the proper official of the user bureau.

**(3) Use Rates.** Operation of fleet aircraft will be charged to a user bureau by a flight-hour and monthly use rate. These use rates are established so that AM may recover costs of operating the aircraft, including scheduled and unscheduled maintenance; time between overhaul (TBO) maintenance reserves; accident/incident reserves; fuel; and aircraft depreciation/replacement/refurbishing reserves. When a general utility aircraft is needed by a using bureau, a request must be made to the appropriate AM Flight Coordination Center (FCC). The use rates are available by contacting FCC. Orders must be accompanied by the user bureau's Agency Order Number. The aircraft owned by AM in the contiguous 48 states will normally be handled as Project Aircraft.

**(4) Loss or Damage to Aircraft.** AM assumes responsibility for loss or damage to aircraft when crewed by AM pilots or by AM-approved bureau pilots, unless other specific arrangements are addressed in the above-mentioned annual agreement. While AM assumes costs for loss or damage to the aircraft, liability is limited to the blue book value at the time of the accident, plus retrieval cost. The user assumes any third-party liability that may arise from the operation of the aircraft.

**Contract  
Services**

**B. Contract Services**

**(1) Definition.** Contract services include the procurement of aircraft, aircraft components and accessories, aircraft maintenance, and commercial aviation services by formal contract in accordance with 353 DM 1.

**(2) Funding.** DOI bureaus will pay for these services through the WCF Centralized Billing process.

**(3) Additional Charges.** Contract services or the purchase of fleet aircraft that require extensive travel or per diem by AM employees may result in additional bureau charge for travel and per diem only. No additional charges for labor shall apply. Reimbursements of this type shall be coordinated and agreed upon by the bureau and AM in advance using a special reimbursable agreement.

OPM-6:  
(continued)

**Aircraft Rental  
System**

**C. AM Aircraft Rental System Services and Charters.** Services include arrangement of commercial aviation services through the AM aircraft rental system using Aircraft Rental Agreements (ARAs) in accordance with 353 DM 2. Orders for commercial aviation services may either be placed through an AM Flight Coordination Center or by a bureau representative holding appropriate authority within the bureau to place orders against the AM agreement.

**(1) Definition.** Aircraft rental services include charters and other aircraft usage of a relatively short duration covered by an ordering agreement, i.e., one trip, one job, etc., and which are obtained at an estimated cost not to exceed the open-market limitation.

**(2) Funding.** DOI bureaus will pay for these services through the WCF Centralized Billing process.

**Procurement  
Ratification**

**(3) Aircraft Services Procurement Ratification.** If a system user orders aircraft services from a commercial vendor or aircraft not on the current AM Source List, or otherwise available under an AM procurement document, a Ratification of Unauthorized Commitment must be prepared before the vendor can be paid by AM. Ratification is costly; it requires an extensive documentation, justification and approval process, the costs of which are not anticipated in AM overhead rates. When ratification is required, the ordering office shall be responsible for furnishing a written justification explaining the circumstances leading to the unauthorized commitment and actions being taken to preclude reoccurrence. The AM procurement staff will review the justification and, when justified, prepare a ratification statement for approval by the Director-AM in accordance with Federal Acquisition Regulations. When AM pays for such ratified commitments, AM will bill the bureau for the flight services, and also charge the bureau, on the same billing, an additional \$1000 to cover ratification expenses incurred.

**Miscellaneous  
Services**

**D. Miscellaneous Services.** Other aviation related services not identified in A, B, or C above will be identified as Miscellaneous Services.

**(1) Definition.** These services will include Open Market and small purchase transactions, personnel support, pilot training, etc.

(a) Open market services include purchase transactions accomplished by AM on behalf of the requesting bureau or office for aviation-related items or support, such as purchase order-procured aircraft components and accessories, fuel, aircraft crew field accommodations, etc.

(b) Personnel support services includes additional personnel support on aircraft-related projects, etc., which are furnished by AM upon request by a bureau. Such services will be subject to AM staffing and operational limitations.

**(2) Administrative Surcharge.** The charges for these services will be negotiated with the requesting bureau and set forth in a written agreement, signed by both parties, prior to the performance of the requested service.

**.4 Services to Agencies.** Outside Department of the Interior. Services provided to non-DOI agencies will be subject to staffing and operational limitations with priority given to bureaus within DOI.

**A. AM Fleet Aircraft Services.** Aircraft owned by AM may be made available to agencies outside DOI at rates negotiated with the requesting organization, the current DOI bureau to which the aircraft is assigned, and AM.

**B. Contract Services.**

(1) Commercial aviation services will be provided to agencies outside DOI based upon the direct contract costs, plus a percentage administrative expense determined by the annual estimated contract price of each aircraft calculated separately. The non-DOI user service charge schedule is outlined as follows:

<u>Cost Per Individual Aircraft</u>	<u>Percentage</u>
\$ 0 - 250,000	11%
\$ 250,001 - 500,000	9%
\$ 500,001 - 1,500,000	7%
\$ 1,500,001 and above	6%

(a) Aviation services procured through competitive negotiation, at the request of the user agency, require substantial effort and expense over and above that required by the regular sealed bid process. The extra travel and per diem costs incurred in this negotiation process will be charged to the requesting organization, in addition to the above published administrative overhead percentage.

(b) Non-DOI users of AM contractually procured commercial aviation services receive many of the same related AM services as do DOI agencies such as routine contracting staff effort in the procurement, similar vendor payment, user billings, and Management Information System output. Also, the percentage for administrative expenses covers certain other items which are available to DOI users such as technical specifications preparation or amendments for the contracts, one-day user aviation safety training for field crews using the aviation equipment, and technical inspection of vendors, equipment, and pilots.

(c) Additional safety training, requested safety surveys or evaluation, excessive accident investigation costs (e.g., aircraft retrieval or engine tear down analysis expenses), extraordinary management training sessions, etc., are not included in the percentage administration expense and, therefore, must be arranged to be handled as reimbursable services as identified in .3D, Miscellaneous Services.

**(2) Aircraft Purchases.** Services related to the acquisition of aircraft may be provided to non-DOI bureaus at a service charge of 6% with an upper limit negotiated with the requesting organization. This rate will apply to the purchase price of the aircraft, as well as to any components and accessories not purchased on the same contract as the aircraft. When an acquisition involves used equipment or price negotiation where extensive travel is required, travel and per diem will be charged in addition to the 6% service charge.

**C. Aircraft Rental Services.** These services will be provided in accordance with paragraph .3C of this OPM. The use rate for non-DOI users is actual costs paid to the vendor plus a 14% AM administrative overhead expense.

**D. Miscellaneous Services.** Any additional aviation service available through AM will be provided to agencies outside DOI on a direct-cost-plus-14% administrative expense.

<p>OPM-6: (Continued)</p> <p>Billing Policy</p>	<p><b>.5 Billing Policy.</b> AM will bill the using bureau or office through the user-entered AM assigned Billee Code in the appropriate location on the Aircraft Use Report (Form OAS-2 or OAS-23). The complete and accurate completion of the Aircraft Use Report is very important to allow AM to prepare complete and accurate payments to vendors and bills to users. An Aircraft Use Report should include user bureau or office accounting or charge code in the “Other Agency Information” block. Aircraft services provided by AM for the specific use of the original requesting federal bureau may, however, be used by a secondary federal bureau, as well as other users outside the Federal Government, provided permission is given by the original requesting bureau and the secondary user has an assigned Billee Code. All charges for such secondary service furnished by AM will be billed to and recovered from the original bureau if the secondary user refuses to pay for the services provided. Any discounts derived from AM’s prompt payments to contract or rental operators will be passed on to the user agencies. Any Prompt Payment Act interest penalty incurred due to user agency actions, i.e., paperwork delayed by using or benefiting bureau, will be billed to that using organization along with the appropriate aircraft service costs.</p>
<p>Billing Procedures</p>	<p><b>.6 Billing Procedures.</b> AM uses the Department of the Treasury Online Payments and Collections (OPAC) system to recover the cost of services provided. Each 15 days a “Detail of Charges” printout will be provided to each using office for all DOI/AM fleet, contract, and rental (ARA) aircraft services, as well as AM fuel charges. “Miscellaneous Services Detail of Charges” printout is issued at the end of each month. These printouts will include flight dates, flight hours, etc., with the cost for each item and flight reflected. The “Detail of Charges” will state in the lower left corner when these charges will be collected through the OPAC system from the user’s finance office. On the stated OPAC collection date, AM will provide the appropriate finance office with a summary of all charges supported by the appropriate “Detail of Charges” printouts.</p>
<p>Payment of Bills</p>	<p><b>.7 Payment of Bills.</b> User bureaus or organizations outside the OPAC system are expected to pay all AM bills (Form DI-1040 or SF-1080) in full within 15 days of receipt by the user in accordance with GAO Policy and Procedures Manual for Guidance of Federal Agencies, Title 7, Chapter 2.</p> <p>Billings to non-Federal customers will be subject to the appropriate debt collection rules and regulations which include interest and penalties on delinquent bills. If there are any questions regarding an AM bill, users should contact National Business Center, Financial Management, 300 E. Mallard Drive, Suite 200, Boise, ID 83706-3991, 208/433-5000.</p>

## OPM-39

### DOI Use of Forest Service Procured Flight Services

<b>Purpose</b>	<b>.1 Purpose.</b> This OPM establishes policy pertaining to the use of U.S. Forest Service (FS) procured exclusive-use and Call-When-Needed (CWN) flight services by Department of the Interior (DOI) bureaus as prescribed herein.
<b>Authority</b>	<b>.2 Authority.</b> The Associate Director, Aviation Management (DOI AM), establishes policy in accordance with the provisions of Departmental Manual 112DM12.2E, G and J, and Secretarial Order 3250 dated September 30, 2003. Procedures established herein are in accordance with the AM/FS Memorandum of Understanding (MOU) dated 3/1/96 (DOI).
<b>Policy</b>	<p><b>.3 Policy.</b> Departmental Manual 353DM1.2A and 353DM2.2A specify all commercial aviation services required by any bureau or office of the Department of the Interior (with the exception of those services listed under 353DM1.2A) shall be acquired through the procurement process of the Department's National Business Center (NBC).</p> <p>These policies notwithstanding, this OPM authorizes DOI bureaus, on a case-by-case basis, to use aircraft flight services using a FS procurement process under the following conditions:</p> <ul style="list-style-type: none"> <li>A. There is a proper and formal FS procurement document in place prior to the use of aircraft flight services by the DOI bureau.</li> <li>B. The cognizant FS Contracting Officer concurs in the DOI use of the FS contract.</li> <li>C. There is no NBC procurement document (contract/Aircraft Rental Agreement (ARA) in place or available for the requested vendor/contractor.</li> <li>D. The DOI bureau has determined and documented that it is advantageous, considering cost and other factors, to use a FS procurement document in lieu of an NBC procurement document.</li> </ul>
<b>Limitations</b>	<b>.4 Limitations.</b> This OPM is not intended to amend or supersede current, on-going, or future DOI flight service requirements that bureaus have or intend to have that are procured by NBC as prescribed by DM policy. This OPM will not affect DOI/FS shared flight services of the same vendor/contractor that both agencies utilize under respective NBC/FS procurement documents (i.e., CWN, medium and heavy helicopters.)
<b>Procedures</b>	<p><b>.5 Procedures.</b></p> <ul style="list-style-type: none"> <li>A. The ordering bureau documents the basis for their decision under 3.D above to use FS procurement to acquire aviation services in lieu of NBC contract or an ARA.</li> <li>B. Bureau employee placing the order must have Bureau authority to order aviation services.</li> <li>C. With the exception of a bona fide emergency, the ordering bureau shall obtain approval from the FS procurement office prior to any use of the FS aviation services to include:</li> </ul>
<b>Confirmation</b>	<ul style="list-style-type: none"> <li>(1) Confirmation of the method of payment by the bureau to the FS. FS will make payment to the vendor/contractor for the services received in accordance with the FS procurement document.</li> </ul>
<b>OPM 39</b>	

<p><b>(Continued)</b> <b>Special Use Missions</b></p>	<p>(2) Special Use Missions. Confirmation with the FS that the aircraft and pilot have been inspected and subsequently approved for the intended special use mission/operation. If not approved for the intended special use mission, the bureau shall contact the NBC Regional or Area Office for further consideration of the vendor/contractor.</p> <p>D. Disputes between the aviation vendor/contractor and the DOI bureau will be adjudicated by the FS Contracting Officer and the DOI bureau will be responsible for any resultant financial obligation of the Government.</p>
<p><b>Bureau Responsibilities</b></p> <p><b>Prior to the Flight</b></p> <p><b>After the Flight</b></p> <p><b>General</b></p>	<p><b>.6 Bureau Responsibilities</b></p> <p>A. Prior to Flight:</p> <p>(1) Complete and retain the documentation identified in .5A and B, above.</p> <p>(2) Immediately, prior to any flight, the DOI bureau user(s) shall verify that the FS approved pilot and aircraft have a current interagency qualification card in their possession identifying approval for the specific mission/operation.</p> <p>B. After the Flight:</p> <p>(1) Verify services received by completing an original FS6500-122 form and return to the vendor/contractor pilot or on-site representative. Retain a copy of the form for inclusion with the documentation data listed above.</p> <p>(2) Report use to the NBC Finance Office, Boise, Idaho, via a copy of the FS6500-122 document noting "Not for Payment Purposes." (Completion of an OAS-23, Aircraft Use Report form may be used in lieu of the FS6500-122 form.)</p> <p>(3) Attach a copy of the <u>Process Checklist</u> with the report submitted to NBC Finance Office.</p> <p><b>.7 General</b></p> <p>A. To assist in the process, completion of Appendix 1, <u>Process Checklist</u>, will ensure that all required elements have been completed.</p> <p>B. Bureau aviation users are encouraged to seek advice and assistance from NBC Regional/Area Offices when the authority in this OPM is being considered.</p>



## USE OF FS PROCURED AIRCRAFT - PROCESS CHECKLIST

Check each item to verify that it has been properly completed, attach any supporting documentation, and maintain on file at bureau level.

### Bureau User

Document your decision below or attach an appropriate bureau approval, as required by OPM 03-39 to utilize FS aircraft.

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

Mission(s) to be flown\_\_\_\_\_

Proposed Mission Date(s)\_\_\_\_\_

FS Vendor/Contractor to be Utilized\_\_\_\_\_

Telephone No.\_\_\_\_\_ Type Aircraft\_\_\_\_\_

FS applicable rates\_\_\_\_\_

FS Procurement Document No\_\_\_\_\_

Forest Service Procurement Contact Point\_\_\_\_\_

Telephone No\_\_\_\_\_

Bureau Representative  
Name\_\_\_\_\_ Telephone No.\_\_\_\_\_

# Supervisor's Aviation Responsibilities

Supervisors and managers should understand their responsibilities to provide aviation safety and awareness training to their employees. Employees need to understand the necessity of performing duties within the scope of their employment and how this may affect the potential for personal liability.

## CFR 177.101: Personal Liability

The Code of Federal Regulations (CFRs) states that an employee cannot be held liable for their actions if that employee was "performing within the scope of their employment." This applies to claims asserted under the Federal Tort Claims Act, as amended on January 18, 1967, for money damages against the United States for injury to, or loss of property or personal injury or death caused by negligent or wrongful act or omission of an officer or employee while acting within the scope of his office or employment.

"Scope of Employment" can be determined by two decision processes:

**Discretionary decision** - is decided by Departmental or bureau policy. The policy establishes specifically what an employee can or cannot do. In other words, the decision has been made for us whether we are performing within the "scope of employment."

**Operational decision** - is made by the employee concerning how a particular activity or operation is to be conducted. This decision process is controlled by the employee and may or may not be within the "scope of employment." If the decision violates or deviates from established policy, the employee has stepped outside the umbrella of the "scope of employment." The employee may be open to liability or disciplinary action.

## Personal Life Insurance

**Personnel Management Bulletin No. 94-38 (870).** Many employees are required to travel in Government aircraft (other than regularly scheduled air carriers such as United, Delta, etc.). Many private personal life insurance policies (other than FEGLI) are invalidated as a result of such job-related flying requirements.

Exclusionary clauses in private policies often exclude life insurance coverage for aviation, SCUBA diving, skydiving, and other hazards. There are a number of Department pilots, crewmembers, or passengers (in other than scheduled air carriers). It is important to try to avoid the families discovering they have no coverage after it is too late.

Private, non-government life insurance is a matter strictly between the individual and the provider. Although the Department has no involvement in private insurance policies, it is important that employees are fully aware of their coverage. Identification of any exclusionary clauses, however, are solely the responsibility of the employee.

## 350 DM 1 – Appendix 3

### Bureau Aviation Management Responsibilities Summary

<b>National Office: Director/ Headquarters</b>	<b>A. Staff are responsible for the following:</b> <ol style="list-style-type: none"> <li>1. Implement, execute, and enforce Departmental aviation policy.</li> <li>2. Develop and execute bureau aviation policy.</li> <li>3. Publish bureau aviation management plan.</li> <li>4. Establish a bureau aviation safety program.</li> <li>5. Monitor bureau aircraft accident prevention program.</li> <li>6. Ensure adequate aviation management staff (Bureau Aviation Manager, Bureau Aviation Safety Manager).</li> <li>7. Perform aviation safety evaluations.</li> <li>8. Identify fleet aircraft acquisition, replacement, and disposal to support bureau programs.</li> <li>9. Ensure bureau/agency personnel involved in the use/control of aviation resources receive the appropriate level of aviation safety training.</li> <li>10. Participate in Departmental Aviation Management Council.</li> <li>11. Assign bureau/agency representative for Aircraft Mishap Review Board (AMRB).</li> <li>12. Promote use of AMIS system.</li> <li>13. Respond to AMRB recommendations.</li> <li>14. Report to AM all bureau flight activity not processed through the AM payment system.</li> <li>15. Identify and submit program requirements to AM.</li> <li>16. Expand DOI pilot standards and crew requirements.</li> <li>17. Ensure and enforce compliance with OMB Circular A-126.</li> <li>18. Ensure and enforce compliance with OMB Circular A-76.</li> </ol>
<b>Regional Office Directors</b>  <b>State Office Directors</b>  <b>Area Office Directors</b>	<b>B. Directors are responsible for the following:</b> <ol style="list-style-type: none"> <li>1. Disseminate Departmental aviation safety policy and information.</li> <li>2. Participate in Departmental aviation safety award program.</li> <li>3. Ensure adequate aviation management staff.</li> <li>4. Identify fleet aircraft acquisition, replacement, and disposal to support bureau programs.</li> <li>5. Ensure bureau/agency personnel have appropriate aviation training.</li> <li>6. Operate and maintain aircraft for maximum safety and efficiency.</li> <li>7. Assign a liaison for bureau aircraft and accident investigations.</li> <li>8. Monitor bureau airspace needs.</li> <li>9. Promote use of AMIS system.</li> <li>10. Identify and submit program requirements to AM.</li> <li>11. Expand DOI pilot standards and crew requirements.</li> <li>12. Ensure compliance with OMB Circular A-126.</li> <li>13. Ensure compliance with OMB Circular A-76.</li> </ol>

**Park  
Superintendents**

**District Managers**

**Refuge Managers**

**C. Managers are responsible for the following:**

1. Enforce mandatory DOI standards.
2. Ensure adequate aviation management staff.
3. Perform project planning.
4. Perform risk assessment.
5. Ensure bureau/agency personnel have appropriate aviation safety training.
6. Operate and maintain aircraft for maximum safety and efficiency.
7. Report unsafe operations, conditions, and situations.
8. Ensure ALSE compliance.
9. Ensure flight following compliance.
10. Promote use of AMIS system.
11. Identify specific procurement requirements to AM.
12. Identify and submit program requirements to AM.
13. Request technical assistance for specialized aviation problems.
14. Manage and control vendor aircraft within scope of procurement.
15. Report significant contract and operational problems to AM.
16. Procure aircraft services in accordance with procurement requirements.
17. Prepare/endorse procurement payment documents.
18. Provide information necessary for procurement litigation.
19. Perform post-use evaluation of operating pilots and equipment.
20. Ensure compliance with OMB Circular A-126.

**First Line  
Supervisors of  
DOI Pilots  
and  
Aviation Users**

**D. First line supervisors are responsible for the following:**

1. Enforce mandatory DOI standards.
2. Perform project planning.
3. Perform risk assessment.
4. Ensure bureau/agency personnel have appropriate aviation safety training.
5. Ensure pilots have recent flight experience.
6. Operate and maintain aircraft for maximum safety and efficiency.
7. Report unsafe operations, conditions, and situations.
8. Provide aircraft orientation.
9. Ensure ALSE compliance.
10. Ensure flight following compliance.
11. Provide oversight for vendor aircraft usage.
12. Promote use of AMIS system.
13. Identify specific procurement requirements to AM.
14. Request technical assistance for specialized aviation problems.
15. Manage and control vendor aircraft within scope of procurement.
16. Administer maintenance and service contracts.
17. Report significant contract and operational problems to AM.
18. Procure aircraft services in accordance with procurement requirements.
19. Prepare/endorse procurement payment documents.
20. Provide information necessary for procurement litigation.
21. Perform post-use evaluation of operator, pilots, and equipment.

# Risk Management

The following article was written by General Dennis J. Reimer for Flight Fax in September 1995. The article has been paraphrased to apply to any aviation program.

The purpose of risk management is to identify operational risks and take responsible measures to reduce or eliminate hazards. Risk management allows us to operate successfully in high-risk environment. Managers at every level have the responsibility to identify hazards, to take measures to reduce or eliminate hazards, and then to accept risk only to the point that the job can still be accomplished safely. Risk management is no add on feature to the decision making process but rather a fully integrated element of planning and executing operations.

Articulating risk, collecting data, quantifying risk, and making a decision is a management responsibility. The goal should be to make risk management a routine part of planning and executing operational missions. There are tools to help, but they are tools at best, and no tool can substitute for the exercise of responsible judgment.

From The Charge of the Light Brigade by Alfred Lord Tennyson:

Half a league half a league  
Half a league onward,  
All in the valley of Death  
Rode the six hundred;  
“Forward, the Light Brigade!  
“Charge for the guns!” he said,  
Into the valley of Death  
Rode the six hundred.

Cannon to the right of them,  
Cannon to the left of them,  
Cannon in front of them  
Volleyed and thundered;  
Stormed at with shot and shell,  
Boldly they rode and well,  
Into the jaws of Death,  
Into the mouth of Hell  
Rode the six hundred.

In October of 1854 at the Battle of Balaclava during the Crimean War, the commander of the British forces hastily ordered his cavalry to prevent the enemy forces from escaping with captured British artillery pieces. The order was misinterpreted as a directive to charge the Russian gun position at the far end of a narrow valley surrounded by artillery and infantry. Thanks to British poet Alfred Lord Tennyson, The Charge of the Light Brigade came to symbolize the futility of bloody frontal assaults against fortified positions and increasingly lethal weaponry. Modern battlefields have evolved into an environment of lethality soldiers of the 19th century could not even imagine. Of necessity, technological and doctrinal measures have been developed to avoid direct exposure to that lethality. Vehicle armor, flak jackets, cover and concealment, fire and maneuver, and deception are all designed to protect the force and conserve resources to retain the means to win the war. Risk management is a major tool now used to protect the force both in peace and in war. However, in order to achieve its goal, the principles of risk management must be properly applied. What follows is a tongue-in-cheek fictional account of how improper risk management of the Light Brigade's mission might have led to disaster.

## **Risk Management by Gen. Reimer (continued)**

### **The Crimea, 1854: Light Brigade Toc**

**Commander:** "Gentlemen, now that we've decided that the best avenue of approach is straight down the valley, I think we should get the risk-assessment paperwork out of the way. Gridley, what's the first item on the checklist?"

**Gridley:** "Sir, the first item is enemy artillery. Our mission is to take the gun positions at the end of the valley, but I believe we have reports of significant cannon to the right of the valley also."

**Commander:** "Cannon to the right, you say? Well, we've certainly had cannon to the right before, do it all the time. Medium risk, I should think. Give it a three, Gridley."

**Gridley:** "Sir, there are also cannon to the left of the valley."

**Commander:** "Well, of course, stands to reason there would be. Any bloody artillery commander worth his commission would put cannon on the left. But of course we've had cannon on the left before, nothing new in that - what? What did we say cannon on the right was? A three? Well, of course on the left should be a three as well. I say, this risk assessment isn't so bad. It's just simple arithmetic. What else, Gridley?"

**Gridley:** "Well sir, you know our junior officers are awfully inexperienced."

**Commander:** "Inexperienced. Ah yes, I remember my own days as a subaltern in India - didn't know a pike from a toothpick. But I tell you, Gridley, I was an eager chap. How's the morale of our lads?"

**Gridley:** "Well, they are all eager, sir - every one of them - even a bit impetuous if you ask me. All want to cover themselves in glory for Queen and Country, even if they don't know what they're doing. They'd charge into Hell if you asked them to. Sometimes I wish we had young officers who were a bit more cautious."

**Commander:** "Cautious. Poppycock! We don't recruit poets and schoolmasters into the British Calvary! We need lads with a "can do" attitude and the consequences be damned! Now, enough of this. How does our risk assessment add up?"

**Gridley:** "Actually, sir, it computes to be a medium risk."

**Commander:** "Good! Jolly good! Then the mission goes as planned. We won't have to change a thing. CHARGE!"

## **Medium Risk Syndrome**

This article was written by Major Henry S Morgan, Jr., for Flight Fax, September 1995. The article has been paraphrased.

Risk assessment cards, matrices, and worksheets were developed as tools to help units identify and quantify the effects of hazards. The use of these risk assessment tools evolved as a way to standardize and formalize the way bureaus and agencies evaluate a mission in terms of risk. The idea was that if the cumulative values of the hazards exceeded a predetermined threshold, then a higher level of management supervision was required for mission approval.

### **Faulty Risk Assessment**

It was thought that management involvement was a way to ensure that the risks were being managed. However, a phenomenon has developed in which the design of the worksheets or matrices is in some cases such that virtually all computations result in medium risk or below. No allowance is being made for the likelihood that a high-risk value for one hazard will be averaged with other low-risk factors. Hazards are being given a low value because "we do it all the time, it's our mission." Too often, currency is equated with proficiency.

Medium risk has sometimes come to mean that the mission is a "go," and there is no need to implement controls to reduce the risk. And as long as the worksheet shows that the mission is a medium risk, there isn't any reason to bug a manager to approve it. As BG Thomas W. Garrett, the Director of Army Safety, has observed on several occasions, even The Charge of the Light Brigade would have been evaluated as a medium risk using some of the matrices and worksheets that are currently being used in the field.

### **Effective Risk Assessment**

To be effective in preventing accidents, the risk assessment should be an exercise in arithmetic. There is room for the "prudent man" concept, which includes judgment, experience, and intuition. Managers and supervisors should review their risk assessment worksheets to ensure that they realistically assess the hazards in the context of the overall mission. Look past the numbers and weigh the benefits of a medium risk mission against the costs of miscalculation and implement controls to reduce even medium risks. Don't charge into the Valley of Death with a medium risk worksheet in your hand.

## Aviation Risk Assessment

Risk assessment is the subjective analysis of physical hazards and operational procedures to arrive at a GO/NO-GO decision. Risk assessments support informed GO/NO-GO decisions which are the responsibility of line management. The pilot retains the final authority for a NO-GO decision when safe operation of the aircraft is a factor.

### Checklist No. 1

<b>If you answer NO to any of the elements, stop and re-evaluate.</b>		The following is designed to provide the aircraft user or manager a checklist to help determine a GO/NO-GO decision.  <b>Go/No-Go Checklist</b>
YES	NO	
		1. Aircraft data card, checked, mission approved.
		2. Pilot qualification card, checked, mission approved.
		3. Pilot flight/duty limitations checked.
		4. Manifest completed and left at departure point.
		5. Weight and balance completed by pilot.
		6. Mission approved by management. PPE available and worn, if needed.
		7. Pilot briefed by personnel on intended mission and hazards.
		8. Aircraft safety briefing provided to passengers.
		9. Personnel trained and qualified for mission.
		10. Flight plan completed, flight following procedures established and operational.
		11. Hazard map reviewed for low-level flights.
		12. Weather forecast received, winds within prescribed limits.
		13. Cargo checked and secured.
		14. Survival equipment available if required.
<b>Comments:</b>		



# Aviation Risk Assessment

## Checklist No. 2

### General Information: Flight Manager

Flight manager	Flight purpose
Organization name/address	
Local contact/phone	Flight date

### Passenger Manifest: Pilot

Aircraft owner		Pilot name	
Type/spec equip/regist. no/color			
Flight following radio frequency(s)		Hours of fuel on board	
Gen use	Special use	Use code	Other
Departure loc	Intermediate stop(s)		Destination
ETD	ETA	ETD	ETA

Persons on board	Weight	Remarks
1.		
2.		
3.		

### Go/No Go Checklist Preflight Duties: Flight Manager

Yes	No	
		1. Unscheduled aircraft is the best/only option available to fulfill need effectively?
		2. Cost comparison/approval accomplished for point-to-point travel (nonmission flights).
		3. Release Authorization, OAS Form 115, obtained for passengers on a space-available basis.
		4. Aircraft data card current and mission approved?
		5. Aircraft condition/configuration mission appropriate?
		6. Is the pilot's recent experience in the mission appropriate?
		7. Pilot flight/duty time within limits (351 DM 1.9(B)(2)?
		8. Pilot briefed on mission and inherent hazards?
		9. Personal protective equipment required?
		10. Aircrew trained, qualified, and briefed on individual mission responsibility?
		11. Flight following procedure established and operational? FAA: Local station:
		12. Hazard map reviewed for low-level missions?
		13. First aid/survival equipment on board?
		14. Preflight pilot responsibilities fulfilled?
		15. Aviation risk assessment within low or caution range?
		16. Level of risk factors acceptable?

**If you answered NO to any of the above, stop and reevaluate.**

**Flight manager signature/date:**

## Risk Management Process

- Risk identification: *This is risky, this isn't.*
- Risk evaluation and quantification: *The risk is this great.*
- Risk reduction: *Risk can be reduced by this and this.*
- Risk decision making: *This risk we can live with, this we can't.*
- Risk decision follow-up: *Are the risk and benefit as projected?*
- Risk research: *What is the risk? What risk is essential?*

## Risk Matrixes

It is important that managers and supervisors identify factors that elevate risk in aviation activities. This can be a difficult subject to quantify. There are a number of techniques to accomplish this. The following risk matrixes were developed by the military and modified to be more applicable to Departmental needs.

As you use the matrixes, apply the risk management process to your particular aircraft mission. The intent is to provide an awareness of elevated risk levels to minimize mishap potential.

The matrixes use a scale of risk based upon 1 being of low risk and 5 being the highest. There are two exceptions. The risk factor for moisture and visibility increases to 6 due to extreme cold conditions and greater potential for icing. The risk factor for the experience matrix also increases to 6 for employees with no training.

### Planning

Aviation activity has become increasingly demanding. This requires more emphasis on planning and preparation. Use the planning matrix to determine if sufficient guidance is present and necessary preparation has been accomplished for the activity.

Guidance	Preparation		
	In-depth	Adequate	Minimal
Vague	3	4	5
Implied	2	3	4
Specific	1	2	3

## Risk Management Process (continued)

### Complexity

The complexity of the operation is broken down into two elements, routine and non-routine. Non-routine could be determined as operations that occur beyond everyday planned activities.

Example: A complex resource management or maintenance project.

A special mission could be a search and rescue or law enforcement activity.

<i>Task</i>	<i>Preparation</i>	
	<b>Routine</b>	<b>Non-routine</b>
<b>Special Mission</b>	4	5
<b>Special Use</b>	3	4
<b>General Use</b>	1	2

### Supervision

Risk Management should be practiced by everyone involved in aviation activities. Most importantly, the greater the risk the higher the decision level.

<i>Decision Level</i>	<i>Mission</i>		
	<b>General Use</b>	<b>Special Use</b>	<b>Special Mission</b>
<b>Employee</b>	3	4	5
<b>Supervisor</b>	2	3	4
<b>Manager</b>	1	2	3

### Experience

As a minimum, employee experience is based upon Departmental and Bureau aviation training requirements. If an individual has previous training and aviation field experience, the employee may be considered "highly qualified."

<i>Task</i>	<i>Employee Training &amp; Experience</i>		
	<b>Highly Qualified</b>	<b>Minimally Qualified</b>	<b>No Experience</b>
<b>Very Complex</b>	3	4	6
<b>Complex</b>	2	3	6
<b>Simple</b>	1	2	5

## Risk Management Process (continued)

### Weather

Weather is an important element in risk assessment. When planning an aviation project, try to gather as much information on environmental factors as possible. Get a current and predicted weather forecast of the area.

### Moisture/Visibility

Cold temperatures and moisture can present serious problems for aircraft, primarily icing conditions. This can have a dramatic effect on the flight characteristics of the aircraft and should be considered when completing a risk assessment. Flying during poor visibility is an invitation to have an accident and should always be a concern when planning a flight.

<i>Temperature – °F</i>	<i>Moisture/Visibility</i>		
	Clear/Dry	Low Ceiling Drizzle/Snow	Fog/Rain Snow/Ice
<b>Below 0</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>0-31</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>32-59</b>	<b>2</b>	<b>4</b>	<b>5</b>
<b>60+</b>	<b>1</b>	<b>3</b>	<b>4</b>

### Winds

Wind is a primary consideration using aircraft. When using helicopters, Departmental policy requires that operations shall be shut down if winds exceed limitations established in the operator's flight manual or manufacturer's recommendations. If no wind limitation is prescribed, helicopter operations shall be terminated when wind speed exceeds the following conditions:

**Flying within 500 feet of the surface:** Small helicopters: 30 knots (35 mph)  
Medium/large: 40 knots (45 mph)

**Above 500 feet of the surface:** All helicopters: 50 knots (58 mph)

Gusty winds can be critical during takeoff and landing. **Operations shall be terminated when the gust spread exceeds 15 knots (17 mph).**

<i>Wind Speed (mph)</i>	<i>Winds</i>		
	Steady	Gusty (5-10 mph)	Gusty (10-15 mph)
<b>30-35</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>20-30</b>	<b>2</b>	<b>4</b>	<b>5</b>
<b>0-20</b>	<b>1</b>	<b>4</b>	<b>5</b>

## Risk Management Process (continued)

### Temperature and Elevation

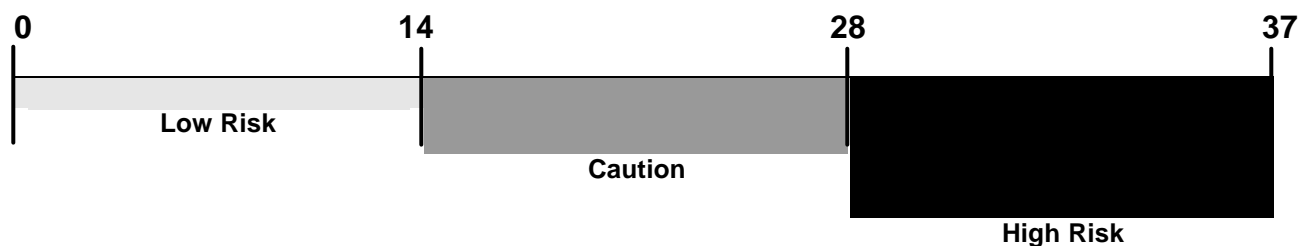
Aircraft performance is always affected by density altitude. Elevation you may be working at is a major consideration when completing a risk assessment. The following matrix is designed to show a greater risk as elevation and temperature increases.

<i>Elevation</i>	<i>Temperature (°F)</i>		
<b>8000-9000</b>	<b>Up to 80</b>	<b>80-85</b>	<b>85-90+</b>
	<b>3</b>	<b>4</b>	<b>5</b>
<b>2000-8000</b>	<b>Up to 80</b>	<b>80-90</b>	<b>90+</b>
	<b>2</b>	<b>4</b>	<b>5</b>
<b>0-2000</b>	<b>Up to 70</b>	<b>70-90</b>	<b>90+</b>
	<b>1</b>	<b>2</b>	<b>4</b>

Elevations above 9000 feet give a risk factor of 5.

### Total Number of Risk Factors

Add the total number of risk factors chosen from all the matrixes. The corresponding number on the risk gauge will give you an approximate total risk for your planned aviation activity.



This risk assessment may not fulfill all your needs or provide the information you desire. It should generate the necessity to think before you act. It does not take into account a major human risk factor, complacency. This is a factor that should always be in the front of our minds.

# **NBC Aviation Management**

## **Headquarters Office**

300 E. Mallard Drive, Suite 200, Boise, Idaho 83706-3991

Director's Office fax: 208/433-5007

Human Resource Office Fax: 208/433-5005

Financial Management Division fax: 208/433-5043

Information Resource Management Division fax: 208/433-5068

Aviation Safety Division fax: 208/433-5069

Division of Technical Services fax: 208/433-5085

Acquisition Management Division fax: 208/433-5030

## **Alaska Regional Office**

4405 Lear Court, Anchorage, Alaska 99502-1032

Administration fax: 907/271-4788

Flight Operations fax: 907/271-6080

Hangar fax: 907/271-4787

## **Area Offices**

### **West Area Boise**

208/334-9310

2741 Airport Way, Boise ID 83705

Fax: 208/334-9303

### **West Area Phoenix**

623/879-0589

22601 North 19 Avenue, Suite 208

Phoenix, AZ 85027

Fax: 623/879-0595

### **East Area**

770/458-7474

3190 NE Expressway, Suite 110

Atlanta, GA 30341-5323

Fax: 770/458-6677

## **For DOI and USFS Aviation Managers**

Please see the Aviation Technical  
Directory at....

[http://www.fs.fed.us/fire/aviation/av  
\\_directory/Directory2004.pdf](http://www.fs.fed.us/fire/aviation/av_directory/Directory2004.pdf)

